

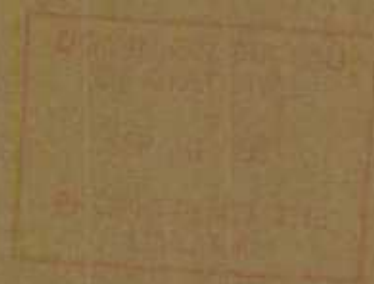
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NATIONAL ACCOUNTS
INCOME AND EXPENDITURE
1926 - 1950



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Dominion Bureau of Statistics
DEPARTMENT OF TRADE AND COMMERCE

NATIONAL ACCOUNTS
INCOME AND EXPENDITURE
1926 - 1950

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FOREWORD

The National Accounts embody a vast amount of economic data collected by the Bureau and other government agencies. As new statistics become available, as the quality of existing figures is improved, and as better methods for combining the data into the required synthetic aggregates are developed, it becomes possible to improve the reliability of the estimates incorporated in the Accounts and to extend the tabular information. The present report represents an important stage in this process of improvement and extension. It supersedes all previous publications on National Accounts issued by the Bureau.

However, the present volume cannot be regarded as final or definitive. Further improvements can be expected in the future both in reliability of estimates and detail presented.

This is particularly true of the constant dollar (deflated) series of the national output (presented here back to 1926 for the first time) which eliminates the influence of price movements from the year-to-year changes in the current value of national production. This series is released now in response to a very great demand for this information. However, pending more complete analysis and research than has been possible to date, the estimates should be regarded as provisional.

The constant dollar series show movements of real output by dividing the current value components of Gross National Expenditure by appropriate indexes of prices. Another method of measuring movements in real output consists of extending the Bureau's index of the physical volume of industrial production (which at present is confined to manufacturing, mining, and electric power), to cover the whole economy. When this work is completed it will provide further information on volume movements.

This report is divided into two parts, preceded by an introduction which analyses the main highlights of the statistical results. Part I presents the tabular information, and it contains a number of new features, of which the constant dollar series is the most important. Other new features include extension back to 1926 of the income and expenditure accounts for the various sectors of the economy, the industrial distribution of the National Income and main components, the detail of personal expenditure on consumer goods and services, and the analysis of corporation profits; a new classification of personal expenditure on consumer goods and services; a table

showing the relation of National Income and Personal and Disposable Income; a table showing the "imputed" content of personal expenditure; and some changes in tabular presentation. It should be noted that the estimates for the most recent years — 1949 and 1950 — are preliminary.

Part II reviews the statistical sources on which the Accounts draw, and procedures used in making the required estimates. This discussion aims primarily to give the users of the data a general view of the content of the various aggregates and background for appraising the reliability of the estimates. In order to provide perspective, the discussion on sources and methods is preceded by a summary of the conceptual framework which underlies the Accounts.

The present volume was prepared by the Research and Development Division of the Bureau.

In a broad sense, all Bureau divisions have contributed to this report; in particular, wages, salaries and supplementary labour income and most of the price series used in the deflation project are estimated in the Labour and Prices Division, net income of farm operators from farming operations in the Agriculture Division, and exports and imports of goods and services in the International Trade Division; the basic data for many of the estimates are collected and tabulated in the Industry and Merchandising Division and the Public Finance and Transportation Division. The co-operation and assistance of other government agencies, especially the Taxation Division of the Department of National Revenue, the Research Department of the Bank of Canada, and the Economics Division of the Department of Trade and Commerce, are also gratefully acknowledged. The estimates of gross domestic investment are derived from a study on "Private and Public Investment in Canada, 1926-1951" published by the last-mentioned agency. The charts were prepared in the Drafting Section of the Bureau.

Special acknowledgement must be given to the Director and the other members of the staff of the Research and Development Division, which is responsible for the field of National Accounting in Canada.

HERBERT MARSHALL
Dominion Statistician

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INTRODUCTORY ANALYSIS

The National Accounts, as the system of tables presented in this report is called, constitute a set of accounting summaries for the economy as a whole, analogous to the books maintained by business firms for the purpose of appraising past operations and making decisions regarding future action.

The functioning of the economy during the quarter century from 1926 to 1950 is reflected in the statistical tables of Part I of this report: the vigorous boom of the late twenties; the serious depression of the early thirties, and the subsequent hesitant and somewhat uneven revival; the war years; the post-war period of readjustment, and present high levels of employment and business activity. These fluctu-

ations are reviewed in a later section of this introduction, insofar as they are reflected in the National Accounts. But attention is first drawn to some of the main features of economic growth during the period.

In the discussion which follows, definitions of the main aggregates are summarized, but for a more complete review of concepts, reference should be made to Part II of this report. Part II also contains an analysis of statistical sources and methods used, indicative of the reliability of the statistical results. It may suffice to point out here that the conclusions reached in the following discussion are believed warranted, despite the fact that the statistical base on which the estimates for the earlier years rest is not as broad as that for the later years.

Economic Growth and Trends: 1928-1950

For the purposes of the present discussion, the years 1928 and 1950, both years of relatively full use of economic resources, have been selected for comparison. The year 1928 was chosen because it was a period of great prosperity, and did not show the unusual features of the following year¹.

The most impressive fact which emerges from the following analysis is the large expansion which has taken place in the Canadian economy since the

boom period of the late twenties. This expansion was accompanied by a significant change in the patterns of expenditure and sources of income. Striking shifts have occurred in the relative importance of various industrial groups. These developments are discussed under the following headings: Gross National Product; Gross National Expenditure; National Income—Factor Share and Industrial Distribution Analysis; Personal Income and Expenditure; and Government Revenue and Expenditure.

Gross National Product

An overall measure of our economic achievements is provided by the **Gross National Product**. This aggregate measures the value of goods and services produced by Canadian residents in a given period (a year) by adding together all costs arising in production. For the economy as a whole, these costs consist first of factor costs, that is to say, the earnings of the factors of production employed: wages and salaries, investment income including corporation profits before taxes, and net income of unincorporated business. The sum of these factor costs is the **National Income**². To arrive at the total which measures production at market prices it is necessary to add elements of market prices which do not represent incomes of factors of production, that is, depreciation allowances and similar business costs, and indirect taxes less subsidies. The total thus obtained is called the **Gross National Product**.

1. It appears that in 1929 expenditures on personal consumption and on investment were unusually high. There was a considerable drop in exports, while imports continued to rise. At the same time, grain crops were smaller and agricultural income was quite low.

2. "National Income" and "Net National Income at Factor Cost" are used interchangeably in this report.

3. Average annual rates of growth, annually compounded.

The Gross National Product is estimated at \$18,029 million in 1950, an increase of nearly 200 per cent over \$6,105 million in 1928. However, these figures reflect price increases as well as expansion of the physical volume of output. In order to arrive at an estimate of growth of real production, adjustment must be made for price changes. The estimates so adjusted are referred to as constant dollar series. In the present report, constant dollar movements have been measured in terms of average prices prevailing in the period 1935-1939, although other years could have been selected as the base period.

In terms of constant 1935-1939 dollars, then, the Gross National Product of 1928 would be valued at \$5,330 million and that of 1950 at \$10,178 million (see Chart I). This suggests that the physical volume of production in 1950 was over 90 per cent greater than that of 1928; while the average price level was over 50 per cent higher. The average annual rate of increase in the physical volume of output between the two years is estimated at about 3 per cent³.

During the same period, population grew by over 40 per cent, or 1.6 per cent³ per year. On a per capita basis, the physical volume of the national

output increased at a rate of approximately 1.3 per cent¹ annually. It should be noted that, to the extent that the average number of hours worked per week declined during the period, this increase in output has been achieved with reduced effort per worker.

Before turning to an analysis of the disposition of the national output in these years, as indicated by the components of Gross National Expenditure, attention is drawn to the nature of the constant dollar

series. It bears emphasis that their main purpose is to eliminate the price movements from the year-to-year changes in the value of the national output. In certain respects, however, this objective can be achieved only imperfectly. These imperfections are discussed in detail in Part II, Section 6 (page 124) but it may suffice to point out here that they are of more concern in year-to-year analysis of productivity in the economy than in the present discussion of trends.

Gross National Expenditure

The market value of goods and services produced by Canadian residents in a year can also be measured by adding together all final sales made during the period, adjusted for changes in inventories and imports. For what is produced must be disposed of, either by sales or addition to inventories. The aggregate arrived at in this manner is called **Gross National Expenditure**. It is made up of four main components: sales to consumers (personal expenditure on consumer goods and services); sales to governments (government expenditure on goods and services); sales to business on capital account (gross domestic

investment in new construction, machinery and equipment, and inventories); and sales to non-residents (exports of goods and services). To arrive at a total which corresponds to Gross National Product, imports of goods and services are deducted².

The components of Gross National Expenditure, like the total, may be measured in terms of constant and current dollars. Comparisons of the constant dollar series between one year and another indicate changes in physical volume of output absorbed by the various components, and in the following table the years 1928 and 1950 are compared:

	Millions of Constant (1935-1939) Dollars		Index (1928=100)
	1928	1950	
Personal expenditure on consumer goods and services	3,545	6,857	193
Government expenditure on goods and services	556	1,382	249
Gross domestic investment	1,236	2,043	165
Exports of goods and services	1,391	2,012	145
Deduct: Imports of goods and services	- 1,447	- 2,103	145
Residual error of estimate	49	- 13	-
Gross National Expenditure	5,330	10,178	191

It will be seen that the volume of output absorbed by personal expenditure on consumer goods and services was 93 per cent higher in 1950 than in 1928, a somewhat greater increase than that in total real production. On a per capita basis the rise in real consumption was from \$360 to \$495, or 38 per cent.

Government expenditure on goods and services was beginning to rise in 1929 relative to total output, and by 1930 the proportion of total output absorbed by government demand was approximately the same as in 1950, despite the fact that defence expenditures

were larger in the latter year. However, if 1950 is compared with 1928, output represented by government expenditure on goods and services showed a greater percentage increase than total real production.

Expenditure on new construction and equipment for general government purposes is included in the figures of government expenditure on goods and services just referred to. Expenditure on new capital investment in housing, plant, equipment, and inventories, made by private business concerns, by government operated businesses and by individuals, is included under the heading of "gross domestic investment". It will be noted that the physical volume of output represented by gross domestic investment was 65 per cent larger in 1950 than in 1928. This percentage increase is substantially less than that shown by total output. It appears that a greater proportion of total real output was devoted to gross

1. Average annual rates of growth, annually compounded.

2. In other words, since the components of Gross National Expenditure include the value of imported goods and services, and since it is desired to measure only the production of Canadian factors, imports of goods and services must be deducted.

domestic investment in 1928 than in 1950, despite the large accumulation of inventories that took place in the latter year.

The smallest percentage increase from 1928 to 1950 was shown by both exports and imports, indicative of greater relative dependence on domestic sources of supply and markets at present than a quarter-century ago.

In contrast with the constant dollar series just discussed, the movements of which represent only changes in physical volume of output, the current dollar figures reflect the combined influence of price and volume changes, as mentioned above. The following table compares the Gross National Expenditure and its main components expressed in terms of current dollars:

	1928	1950	Index (1928=100)
	Millions of dollars		
Personal expenditure on consumer goods and services	4,194	11,862	283
Government expenditure on goods and services	597	2,314	388
Gross domestic investment ¹	1,293	4,184	324
Exports of goods and services	1,773	4,173	235
Deduct: Imports of goods and services	- 1,808	- 4,482	248
Residual error of estimate	56	- 22	-
Gross National Expenditure ¹	6,105	18,029	295

1. These aggregates include the change in book values of non-agricultural inventories rather than the value of physical change. If the latter is used the index of gross domestic investment is 298 and that of Gross National Expenditure 290.

It will be seen that the relative increases shown by the current value figures are considerably different from those in terms of constant dollars. In particular, the percentage rise of personal expenditure on consumer goods and services is smaller than that of gross domestic investment if current dollar

magnitudes are compared; and higher if the comparison is made in terms of constant dollars.

These differences result from the fact that the prices of the various components of Gross National Expenditure rose at varying rates, as indicated in the following table:

	Implicit price deflator (1935-1939=100)		Index (1928=100) ¹
	1928	1950	
Personal expenditure on consumer goods and services	118.3	173.0	146
Government expenditure on goods and services	107.4	167.4	156
Gross domestic investment	100.6	189.3	188
Exports of goods and services	127.4	207.4	163
Deduct: Imports of goods and services	125.0	213.1	170
Gross National Expenditure	114.6	174.0	152

1. According to index number theory, currently weighted price series are not strictly comparable from year to year, although each year may be compared with the base period. The above indexes are in effect currently weighted, but tests have shown that the procedure followed in column 3 of the table is sufficiently accurate for the conclusions drawn.

Thus, the percentage increase in overall prices of total gross domestic investment was greater than that of any of the other components of Gross National Expenditure; while that of personal expenditure on

consumer goods and services was smaller.

Accompanying these changes were significant shifts among the various components of the National Income, and these are now reviewed.

National Income

As indicated above, the National Income is the aggregate of all earnings arising in the production of goods and services. In current dollars, National Income in 1950 was \$14,406 million compared with \$4,823 million in 1928, or three times as great. Much

of the increase is, of course, a reflection of the rise in prices indicated above.

National Income can be analyzed in terms of factor shares and also in terms of the industrial origin of the various earnings.

Factor Share Analysis

It should be noted that the present analysis is made in terms of types of earnings only, and cannot be used as a measure of total income received by various groups in the economy. For example, earnings of farm operators appear in the following table as a separate share; but this share includes only their earnings from farm production. Farmers, like other groups in the economy, may have supplementary earnings, e.g. earnings from off-seasonal employment, or income from investments. These earnings are

excluded from the item "accrued net income of farm operators from farm production"; they are included under the other headings in the table. Transfer payments, such as family allowances, are excluded by definition from the National Income since they are not paid in return for services rendered. These considerations are important in studying the following table which summarizes the relative position of different sources of earnings from current production.

	1928		1950	
	Millions of Dollars	Percent	Millions of Dollars	Percent
Wages, salaries and supplementary labour income	2,705	56.1	8,271	57.3
Military pay and allowances	7	.1	137	1.0
Investment income	872	18.1	2,921	20.3
Accrued net income of farm operators from farm production	655	13.6	1,579	11.0
Net income of other unincorporated business	584	12.1	1,498	10.4
Net National Income at Factor Cost	4,823	100.0	14,406	100.0

The increase in salaries and wages and in investment income relative to income of non-farm unincorporated business is associated with the changes in industrial structure discussed below; manufacturing, for example, where the corporate form of business organization is prevalent, has become relatively more important, while services and residential real estate, where the incidence of unincorporated business is great, have declined in relative importance. Further, the change may reflect generally wider adoption of the corporate form of business.

The rise in the relative position of investment income is entirely due to the movement of corporation profits before taxes. Other investment income, consisting mainly of interest and net rental income of persons, declined considerably as a percentage of the National Income.

Corporation profits before taxes (after payment of dividends to non-residents), as a percentage of National Income, rose from 8.6 per cent in 1928 to 13.2 per cent in 1950. The rise took place mainly since the beginning of the war. It should be noted, however, that corporation profits, like the other earnings included in National Income, are measured before deduction of taxes; if all direct taxes are eliminated from the National Income, corporation profits after taxes, expressed as a percentage of the remainder, were approximately the same in 1928 as in 1950.

The change in the position of agriculture in the economy is discussed in the following section. It may be noted here that accrued net income of farm operators from farm production, the most important component of total income originating in agriculture, is rather more unstable than wages and salaries and investment income originating in this industry.

Industrial Distribution of National Income¹

Another way of analyzing the National Income is to distribute it by industrial origin. The resulting distribution shows the changes that have taken place in, and the importance of, different industry groups as sources of income and production.

Signifying rapid industrialization of the country, manufacturing had become substantially more important by 1950, when it accounted for 30.4 per cent of the National Income, compared with 22.8 per cent in 1928. Gains were also registered by the distributive outlets — wholesale and retail trade — from 12.4 per cent in 1928 to 15.4 per cent in 1950. Forestry, fishing and mining remained about the same, while government, other than government business enterprise, rose fractionally. Construction registered a moderate gain.

Among the groups that have declined in relative position are transportation, storage, communication and public utilities, which accounted for 9.8 per cent of the National Income in 1950 compared with 12.9 per cent in 1928. In the case of transportation, it may be noted that there has been a substantial shift to user-operated transportation, with the growth in popularity of the motor vehicle, and the expansion and improvement of highways.

Income originating in services, other than government service, declined to 8.2 per cent in 1950 from 11.8 per cent in 1928. An important element in this decline is that of domestic service, which is included here. Finance, insurance, and real estate have also declined in relative position. It should be noted that the rental component is included here.

Agriculture is subject to wide fluctuations because of its dependence on the weather and economic forces of world-wide compass, and as a consequence it is difficult to interpret annual comparisons of income originating in this industry. However, there has been a significant decline in the proportion of income originating in agriculture since the period 1926-1928. The labour force employed in agriculture has also declined. The nearest year to 1928 for which labour force data are available is 1931, and in that year 1,200,000 persons, or 29.3 per cent of the total were occupied in farm work, compared with some 1,070,000 or 20.3 per cent in 1950. These declines are associated with the growing mechanization of farms and increasing industrialization of the economy in general. If it is assumed that the number of persons employed on farms in 1928 was not much different from that in 1931, a substantially greater rise in net output (income originating) per employed person has taken place in agriculture than in non-agricultural industries.

Personal Income

Personal Income is a measure of all current receipts of income, in cash or in kind, of persons (including individuals, private non-commercial institutions and private pension funds). It differs from National Income in that it excludes all earnings not paid out to persons, such as undistributed corporation profits and profits of government business enterprises, and includes receipts which have not been earned in the course of current production, that is, transfer payments.

In 1928, Personal Income amounted to \$4,618 million, and in 1950 to \$13,417 million, almost three times as great. Personal Income after personal direct

taxes, that is, Disposable Income, was \$4,559 million and \$12,682 million in 1928 and 1950 respectively. On a per capita basis, the increase in personal Disposable Income was from \$464 in 1928 to \$916 in 1950, a rise of 97 per cent. Since the implicit price index used to arrive at the constant dollar expenditures on consumer goods and services rose by 46 per cent, a very considerable increase in real Disposable Income per capita is indicated.

The following table shows the main changes which have taken place in the sources of Personal Income:

	1928		1950	
	Millions of Dollars	Percent	Millions of Dollars	Percent
Wages, salaries, and supplementary labour income	2,705	58.6	8,271	61.6
Employer and employee contributions to social insurance and government pension funds	-22	-.5	-259	-1.9
Military pay and allowances	7	.2	137	1.0
Net income received by farm operators from farm production	639	13.9	1,444	10.8
Net income of other unincorporated business	584	12.6	1,498	11.2
Interest, dividends and net rental income of persons	597	12.9	1,266	9.4
Transfer payments (excluding interest):				
From governments	87	1.9	1,012	7.5
Charitable contributions from corporations	5	.1	25	.2
Net bad debt losses of corporations	16	.3	23	.2
Total Personal Income	4,618	100.0	13,417	100.0

1. See Charts V, VI, and VII.

The most notable change in the relative sources of Personal Income is the rise in importance of transfer payments from governments. Since 1945, family allowances and pensions to veterans have been the most important of the transfer payments. Other transfer payments by the federal government¹ which are of continuing importance include war veterans' allowances, payments under the Prairie Farm Assistance Act, and pensions to government employees. It must be borne in mind, however, that transfer payments in this context do not include interest payments on the government debt. Insofar as the latter are received by persons, they are included with interest, dividends and net rental income of persons.

Among the most important of the provincial and municipal transfer payments are those for old-age pensions¹ and grants to private non-commercial institutions. In recent years, they have, together, been almost as important as family allowances. Other

1. The contributions by the federal government to old-age and blind pensions are not included with federal transfer payments to persons. They appear in the Accounts under provincial transfer payments.

provincial and municipal transfer payments include workmen's compensation benefits, mothers' allowances, pensions to government employees, and direct relief payments, in that order of importance. All of these payments (federal, provincial, and municipal) were, in 1950, much larger than in 1928, when the only payments of significant size were payments to veterans, workmen's compensation benefits and grants to private non-commercial institutions.

It is to be noted that while in National Income the investment income component increased in relative importance, interest, dividends and net rental income of persons—the investment income component of Personal Income—declined relative to total Personal Income. The different pattern is explained mainly by the fact that Personal Income includes only that portion of corporation profits which is paid out to persons in Canada as dividends; on the other hand, National Income includes corporation profits before any distribution, (with the exception that dividends paid to non-residents are excluded by definition), and this total has gone up faster than dividends paid to persons in Canada.

Personal Expenditure

The following table gives the other side of the Personal Income and Expenditure Account. The disposition of Personal Income is shown in three cate-

gories; personal direct taxes, that is, personal income taxes, succession duties, and miscellaneous licenses and fees; purchases of goods and services; and personal saving.

	1928		1950	
	Millions of Dollars	Percent	Millions of Dollars	Percent
Personal direct taxes	59	1.3	735	5.5
Purchases of goods and services	4,194	90.8	11,862	88.4
Personal saving	365	7.9	820	6.1
Total	4,618	100.0	13,417	100.0

It is apparent that personal direct taxes were a substantially greater proportion of Personal Income in 1950 than in 1928. To examine the relationship between personal saving and consumption, it is better to use Disposable Income rather than Personal Income. In 1928, 92 per cent of Disposable Income was spent on consumption, while in 1950, the proportion was over 93 per cent. It cannot be concluded from this comparison or with years immediately preceding 1950, that any significant shifts have occurred in the proportion of Disposable Income which was saved¹.

Some changes have taken place in the pattern of personal expenditure on consumer goods and services which may be classified in two ways: (1) by degree of durability, and (2) by purpose, e.g. food, transportation, household operation. The classification by degree of durability distributes expenditures into three groups; durables, non-durables and services.

	1928	1950
	%	%
Durable goods	8.3	11.3
Non-durable goods	56.7	60.0
Services	35.0	28.7
Total	100.0	100.0

During and since the war the proportion spent on services showed declines, mainly due to the influence of the rental component and domestic service which are included here.

1. In 1948 and in 1949, consumer purchases took about 91 per cent of Disposable Income.

Increased expenditures on both durable and non-durable goods have counter-balanced the relative fall in services. While in 1928 expenditure on durables took 8 per cent of total personal expenditure on consumption, in 1950 the proportion was 11 per cent. This change occurred mainly since the war period, and is difficult to interpret; while the increase may reflect a trend it may also be the sequel to wartime savings and shortages of durable commodities.

Lack of data prior to 1930 prohibits a comparison of the distribution of expenditures in 1928 and 1950 classified by purpose. Since total personal expenditure in 1930 was about the same as in 1928, the data for 1930 are used. The table of the percentage distribution of expenditures in the two years follows:

	1930	1950
	%	%
Food	25.4	25.6
Tobacco products	2.7	3.6
Alcoholic beverages	3.9	5.4
Clothing and personal furnishings	13.6	13.1
Shelter	16.4	11.4
Household operations	13.1	12.4
Transportation	8.9	12.5
Personal and medical care, and death expenses	6.5	6.3
Miscellaneous	9.5	9.7
Total	100.0	100.0

The increased use of the automobile is represented in the growth in the proportion of expenditures on transportation. In 1930, 6 per cent of total personal expenditure on goods and services was on user-operated automobiles; by 1950 the proportion had risen to 10 per cent. Other expenditures that have increased relatively are those on tobacco and on alcoholic beverages.

Government Revenue and Expenditure

Over the 22-year period since 1928 the pattern of revenues and expenditures of all governments together — federal, provincial and municipal — (as defined for purposes of the National Accounts¹) has been considerably altered. On the revenue side, it is apparent that direct taxes have become much more important. Thus, in 1928 direct personal taxes constituted only 6.4 per cent of total government revenues, and direct corporation taxes only 4.9 per cent. In 1950, these proportions had risen to 16.7 per cent and 20.5 per cent respectively. On the other hand, the proportion of total revenues derived from indirect

taxes has declined substantially, from 74.4 per cent of total revenues in 1928 to 46.7 per cent in 1950 (see Chart XII)². These shifts in the relative importance of direct and indirect taxes as sources of government revenue have been accompanied by large increases, in absolute terms, in the total of both types of taxes, from \$788 million in 1928 to \$3,686 million in 1950.

The relationship between direct and indirect taxes and the National Income and Gross National Product is brought out in the following table:

	1928			1950		
	Millions of Dollars	Percent of National Income	Percent of GNP	Millions of Dollars	Percent of National Income	Percent of GNP
Direct personal taxes	59	1.2	1.0	735	5.1	4.1
Direct corporation taxes	45	.9	.7	901	6.3	5.0
Indirect taxes	684	14.2	11.2	2,050	14.2	11.4
Total	788	16.3	12.9	3,686	25.6	20.5

It will be seen from this table that the proportion of indirect taxes to the National Income and the Gross National Product remained fairly constant, while that of direct taxes increased substantially.

Government investment income has declined relatively since 1928, from 11.9 per cent to 8.9 per cent of total government revenue. Government investment income, it should be noted, includes profits of government business enterprises, such as the

Canadian National Railways, provincial liquor commissions, and provincial and municipal public utilities; and government interest revenue, including interest on loans and advances and on public funds, such as unemployment insurance and workmen's compensation funds.

1. See Part II, Section 2, p. 117.

2. It should be noted that since 1945 indirect taxes have gained somewhat in relative importance and direct taxes have declined correspondingly.

Employer and employee contributions to social insurance and government pension funds, which for purposes of the National Accounts are included with government transactions¹, increased in relative size, mainly as a result of the growth of social security programmes, and particularly the introduction of unemployment insurance in 1941.

Turning to expenditures by governments, it may be noted, first, that they can be divided into three main categories: (i) expenditures for the purchase of goods and services; (ii) subsidies; and (iii) transfer payments. The first category represents the demands which governments place on the national output. The second category represents amounts contributed by governments toward current costs of production. Transfer payments have been referred to above; they simply add to the sums available for spending or saving by the recipient.

Important changes have also occurred in the pattern of government expenditure since 1928. In that

year, expenditure on goods and services constituted 71.5 per cent of total government expenditure, compared with 60.4 per cent in 1950. This decline in relative position is a reflection of the large increase in transfer payments (including debt interest) and subsidies which has occurred since 1928. While government expenditure on goods and services has increased from \$597 million to \$2,314 million during the period, transfer payments (including debt interest) and subsidies have increased from \$238 million to \$1,518 million. The major part of the latter increase occurred at the federal level.

Total interest on the public debt (consisting of the transfer portion and the portion included in National Income²) was \$231 million, or 27.7 per cent of total government outlay in 1928, and \$548 million, or 14.3 per cent in 1950. In relation to the National Income, interest on the public debt was 4.8 per cent in 1928 and 3.8 per cent in 1950.

Economic Fluctuations: 1926-1950

It will be seen from the review that follows that the most unstable elements of Gross National Expenditure were gross domestic investment and exports (see Chart II). Expenditures on non-residential construction and plant and machinery, in particular, have shown very wide swings. During the prosperous years, gross domestic investment was a substantial proportion of Gross National Expenditure; during periods of depression this component of national expenditure dropped drastically, both in absolute terms and in relative importance. The movements shown by exports (and imports) were also of wide amplitude.

By contrast, movements of personal expenditure on consumer goods and services have been more moderate. During prosperous years the proportion of consumer expenditure to national expenditure tended to decline, while during depressions its proportion increased. With the exception of the war years, government expenditure on goods and services was also among the stable components of Gross National Expenditure.

These fluctuations of the components of Gross National Expenditure occurred simultaneously with diverse movements in the various sources of income. Wages and salaries exhibited a stability similar to that of consumer expenditure. On the other hand, investment income, owing to the volatility of corporation profits, which account for the largest portion of this form of income, has shown much more pronounced swings. The erratic movements of accrued net income of farm operators from farm production have already been referred to. The movements of net income of other unincorporated business were intermediate between the extremes of wages and salaries, and profits.

The fluctuations of Personal (and Disposable) Income were less pronounced than those of National Income (see Chart VIII); Personal Income includes

transfer payments and dividends paid to Canadian residents, two relatively stable items, whereas National Income includes a number of more volatile elements such as corporation profits (before taxes) and profits of government business enterprises. The relative stability of consumer expenditure, referred to above, is associated with the stability of Personal Income.

The main exception to these generalizations is, of course, the war period. During the years 1940-1945 the federal government absorbed a very large proportion of total output. Although consumer expenditure increased substantially during the war years, it rose less rapidly than national expenditure and therefore it declined as a proportion of the latter. Gross domestic investment, on the other hand, declined in absolute terms (after 1942) as well as in relative importance; many of the durable facilities during the war were built on government account, while shortages depleted business inventories.

Developments during the immediate post-war years were to a large extent a direct aftermath of the upheavals during the war period. Drastic declines in government expenditure on goods and services were more than compensated by sharp increases in both consumer and investment expenditures.

The discussion which follows summarizes these developments in greater detail for the following periods: 1926-1929; 1930-1933; 1934-1939; 1940-1945; and 1946-1950.

1926-1929

This was a period of rapid growth in the Canadian economy. The Gross National Product increased by 16 per cent. Prices being, on the whole, stable during this period, the volume of output rose by approximately the same percentage as the value of the Gross National Product.

1. See Part II, Section 2, p. 117.

2. See Part II, Section 2, p. 118.

Most of the components of Gross National Expenditure were growing at a rapid rate. Gross domestic investment rose by 55 per cent from 1926 to 1929; personal expenditure on consumer goods and services by 19 per cent, and government expenditure on goods and services by 31 per cent.

In 1929, expenditure on non-residential construction and machinery and equipment was extraordinarily high so that the ratio of gross domestic investment to Gross National Expenditure was the highest of any year during the period 1926 to 1950. Consumer expenditure on goods and services was also at a very high level. These high levels of expenditure were accompanied by the large excess of imports over exports referred to below.

In 1929, however, there were some significant declines. Inventory accumulation had been substantial in the previous year, but in 1929 the rate of increase fell sharply. At the same time, exports declined by about 8 per cent, while imports continued to rise, leaving a large net deficit of over \$300 million. There was a drop in the production of wheat to a little over one-half the level of 1928. As a result of this and other factors, accrued net income of farm operators from farm production was 38 per cent lower than in the previous year. It is to be noted, further, that the Gross National Product had levelled off in 1929, in contrast with an 8 per cent increase from 1927 to 1928.

1930-1933

Economic conditions in the year 1930 were not, in general, very depressed. But the turning point had been passed.

Employment in the eight leading industries was down 5 per cent from 1929, while the volume of total output was 4 per cent lower. The current value of gross domestic investment in construction and new

machinery and equipment fell by \$276 million, a drop of 21 per cent from 1929. There was a large decline in the book value of inventories but this was entirely due to falling prices; physical stocks actually increased, reflecting difficulty in placing sales. Exports dropped substantially, by \$346 million, or 21 per cent from the 1929 level. The decline in imports was somewhat less so that the large adverse balance of payments shown in 1929 was increased slightly.

Consumer expenditure declined moderately, by \$189 million, or 4 per cent. On the other hand, it is interesting to note that government expenditure on goods and services actually increased.

Personal Income fell by about one-half as much in amount as the National Income, as a result of some increase in transfer payments and the fact that despite the substantial drop in corporation profits dividend payments were maintained. Since the drop in consumer expenditure was even smaller than that of Personal Income, personal saving declined substantially.

Indicating considerable sensitivity to changes in the volume of business, indirect federal government taxes decreased by 27 per cent, and therefore, although provincial and municipal revenues remained about the same, total revenues¹ of all governments together showed a considerable decline. This fact, together with the rise in government expenditure referred to above, resulted in a deficit¹ of \$222 million, amounting to 4 per cent of the Gross National Product.

The decline continued and reached bottom in 1933, when the Gross National Product in current dollars was 42 per cent lower than in 1929. Real output was 29 per cent lower and almost one-fifth of the labour force was unemployed. The following table shows the various components of Gross National Expenditure in 1933, in current and constant dollars, as a percentage of corresponding values in 1929.

	1933 as a percentage of 1929			
	In current dollars		In constant dollars	
	1929	1933	1929	1933
Personal expenditure on consumer goods and services	100.0	65.7	100.0	82.9
Government expenditure on consumer goods and services.....	100.0	77.1	100.0	84.1
Gross Domestic Investment ²	100.0	11.3	100.0	10.5
Residential construction	100.0	30.8	100.0	39.3
Non-residential construction	100.0	16.3	100.0	19.6
Machinery and equipment	100.0	14.1	100.0	15.5
Exports of goods and services	100.0	50.6	100.0	74.7
Deduct: Imports of goods and services	100.0	42.6	100.0	57.7
Gross National Expenditure	100.0	57.6	100.0	70.7

1. It should be noted that the conventional accounting statements of the various governments have been adjusted to include only those transactions which have relevance for the National Accounts. Thus, the figures of revenue, expenditure, deficit and surplus used here are different from those of the budgetary statements. See Part II, Section 2, page 117).

2. Includes changes in inventories.

It is apparent that gross domestic investment fell drastically. In particular, expenditures on new non-residential construction and new machinery and equipment fell from \$1,083 million in 1929 to \$163 million in 1933. Sharp declines also occurred in both exports and imports. World food prices had fallen severely and the volume of international trade had declined generally. In the process of decline the net foreign deficit was practically eliminated.

The fall in personal expenditure on consumer goods and services was substantial, but less severe than that of the components mentioned above. The smallest relative decline was shown by government expenditure on goods and services.

It is interesting to compare the distribution of National Income in the depth of the depression with that of the year 1929.

	1929		1933	
	Millions of dollars	Percent	Millions of dollars	Percent
Wages, salaries and supplementary labour income	2,929	61.1	1,778	72.5
Military pay and allowances.....	8	.2	8	.3
Investment income	836	17.5	299	12.2
Accrued net income of farm operators from farm production	408	8.5	74	3.0
Net income of other unincorporated business	608	12.7	293	12.0
Net National Income at Factor Cost	4,789	100.0	2,452	100.0

The higher proportion accounted for by wages and salaries in 1933 demonstrates the relative stability of this form of income. By contrast, the relative position of investment income dropped substantially. All forms of investment income fell, but the burden was unevenly distributed; corporation profits fell drastically. Net income of non-farm unincorporated business, being a combination of profits, which are volatile, and wages, which are more stable, declined only slightly in relative position.

Accrued net income of farm operators from farm production suffered the largest fall; not only were wheat prices at unprecedented low levels, but grain crops were abnormally small. It will be recalled, from the discussion on trends, that the decline was even larger if 1933 is compared with 1928.

Owing to large relief payments, transfer payments from governments doubled and, since in addition, dividends did not fall as much as corporation profits, the decline in Personal Income was not as severe as that in the National Income.

The fall in Personal Income was nevertheless very large. Personal expenditure was about 1.5 per cent higher than Personal Income, and since direct taxes amounted to 2.4 per cent of Personal Income, personal saving was negative to the extent of 4 per cent of total Personal Income. The decline in consumer expenditure was, however, large as mentioned above; per capita consumption, in terms of 1935-1939 dollars, was \$287 in 1933 compared with \$367 in 1939, about one-fifth less (see Chart IX).

The decline in government revenues¹ was also substantial, while the fall in total government expenditure was moderate; reductions in purchases of goods and services were offset to a large extent by increased transfer payments. As a consequence, expenditures exceeded revenues by \$174 million, and the deficit¹ amounted to 5 per cent of the Gross National Product.

1934-1939

It will be seen that the largest drop in the Gross National Product and in the components of Gross National Expenditure had taken place in 1931 and 1932, and that by 1933 the rate of decline had slowed considerably. Exports actually showed some increase in 1933. It was, however, in 1934 that the first increase in Gross National Expenditure and all its components took place.

Reference to the table on national saving and investment² suggests that replacement of machinery and equipment during 1932 and 1933 was substantially short of compensating for wear and tear and obsolescence, and it is interesting to note that investment in durable assets played the leading role in the resurgence of economic activity in 1934, increasing by 28 per cent over the previous year.

There was also a large increase in both the value and physical stocks of inventories. This was the first year since 1930 in which an increase in the physical stocks of inventories took place. Apparently supplies had been depleted to the point where additions were necessary in order for firms to continue operations.

Exports of goods and services also rose substantially in 1934, exceeding the rise in imports, and as a consequence there was a net positive foreign balance, for the first time since 1926. Impressive advances were also made by consumer expenditure on goods and services, and by government expenditure, though at a smaller rate than the other components mentioned.

1. See footnote, page 17.

2. See pages 44 and 45.

Both the National Income and Personal Income increased substantially, but the former at a greater rate; corporation profits advanced sharply in 1934. Farm income also rose substantially. For the first time since 1930 personal saving was positive, though it was still small in amount.

Improvement in general economic conditions continued until 1937. The situation in 1938 was uneven. In that year exports declined and some decrease took place in domestic investment in new durable assets. Book values of inventories also dropped, but this was entirely due to prices; in physical terms there was a considerable accumulation of stocks. The decline in exports and in investment in durable assets was offset by increases in consumer and government expenditure on goods and services, so that the level of the Gross National Product in constant dollars was slightly above that of 1937, although, in terms of current dollars, it was somewhat lower.

Turning to the National Income, despite a large increase in farm income, there was some decline in the total, mainly because of a sharp drop in corporation profits. It is interesting to note that with transfer payments and dividends being maintained, Personal Income actually rose in 1938 from the

previous year, and personal saving continued at about the same level as in 1937. Since government revenues¹ were somewhat lower than in 1937, the increase in government expenditure on goods and services, referred to above, resulted in a net deficit¹ of \$152 million, compared with \$33 million in the previous year.

In 1939, the Gross National Product rose again. The most notable feature of the year was the tremendous expansion in inventories. A larger increase took place in inventories in that year, in terms both of book value (\$331 million) and physical volume (338 million constant 1935-1939 dollars) than in any year since 1926; this was no doubt associated with the beginning of the war. Modest increases took place in the other components of Gross National Expenditure with the exception of new machinery and equipment and new non-residential construction, which declined somewhat.

However, it is apparent that recovery in 1939 was not as yet complete. Thus, one half million persons, constituting 11 per cent of the labour force, were unemployed in June 1939. Despite an increase in population of 12 per cent from 1929 to 1939, the physical volume of output increased by only 6 per cent, as shown in the table below.

	1939 as a percentage of 1929			
	In current dollars		In constant dollars	
	1929	1939	1929	1939
Personal expenditure on consumer goods and services	100.0	88.9	100.0	103.7
Government expenditure on goods and services	100.0	107.8	100.0	118.0
Gross Domestic Investment ¹	100.0	67.3	100.0	72.8
Residential construction	100.0	74.9	100.0	84.1
Non-residential construction	100.0	34.2	100.0	37.4
Machinery and equipment	100.0	42.5	100.0	43.0
Exports of goods and services	100.0	88.9	100.0	113.7
Deduct: Imports of goods and services	100.0	68.3	100.0	84.3
Gross National Expenditure	100.0	92.6	100.0	106.1

1. Inclusive of change in inventories

It will also be seen that all components of gross domestic investment, with the exception of inventories, were much lower than in either 1929 or 1928, both in constant and current dollars. In terms of current dollars, consumer expenditure was also below the level of 1929, though in real terms it was higher.

The National Income and most of its components were considerably lower in 1939 than in 1929; investment income was higher, due to the influence of corporation profits. Personal Income was also considerably below the 1929 level, but not as much as

consumer expenditure on goods and services. Accordingly, personal saving was considerably higher.

Government revenue¹ was higher in 1939 than in 1929, mainly as a result of increased tax rates on incomes and profits. On the other hand, government expenditure, including transfer payments, had risen even more, and, as a consequence, there was a deficit¹ of \$41 million, compared with a surplus of \$9 million in 1929.

1. See footnote, page 17.

It is interesting to compare the national saving and investment patterns in the two years. Gross national saving¹ had almost returned to the 1929 level; higher personal saving and undistributed corporation profits offset the government deficit and a lower level of depreciation allowances. There were even more marked differences in the disposition of gross national saving. In 1929, the difference between gross domestic investment and gross national saving was balanced by an excess of imports over exports. In 1939, on the other hand, the low level of gross domestic investment was supplemented by an excess of exports over imports. Thus, in 1939, exports were an important factor in the continued growth of income.

1940-1945

The first full year of the war brought about substantial increases in the Gross National Expenditure. In value terms, Gross National Expenditure in 1940 increased by 20 per cent over 1939; in

volume terms, the increase was approximately 15 per cent. This large expansion in real output was mainly the result of heavier demands by the federal government for munitions, higher consumer expenditures and a greater demand for Canadian exports; at the same time, there was a substantial increase in investment in new machinery and equipment.

The increasing tempo of economic activity was accompanied by a rise in the number of persons in civilian employment of over 60,000, while some 100,000 entered the Armed Services. Nevertheless, approximately 9 per cent of the civilian labour force was still unemployed in June, 1940. This reservoir of labour facilitated the great economic expansion which was to follow.

Gross National Expenditure continued to expand until 1944, when in current dollars, it was more than double that of 1939; in volume terms, it was 72 per cent greater. This large growth in the national output was accompanied by a radical shift in the pattern of expenditures, as indicated in the following table.

	1939		1944	
	Million Dollars	Percent	Million Dollars	Percent
Personal expenditure on consumer goods and services	3,904	68.4	6,187	51.8
Government expenditure on goods and services	735	12.9	5,022	42.0
Gross domestic investment ¹	936	16.4	813	6.8
Exports of goods and services	1,451	25.4	3,561	29.8
Deduct: Imports of goods and services	-1,328	-23.3	-3,569	-29.9
Residual error	9	.2	-60	-.5
Gross National Expenditure	5,707	100.0	11,954	100.0

1. Inclusive of change in inventories.

By 1944, government expenditure on goods and services had grown enormously, and in that year absorbed 42 per cent of the nation's output. Gross domestic investment was lower in absolute, as well as in relative terms. This is explained by the fact that there was a decline in both the value and volume of inventory stocks in 1944, in contrast to the heavy accumulation which took place in 1939; the level of investment in new non-residential construction and new machinery and equipment was considerably higher in constant and current dollars, although new residential construction was lower in volume. In relation to total output, however, business investment in durable assets was very low in 1944. It should be borne in mind that capital expenditures by governments (other than government business enter-

prises), which were unusually large during the war period, are included with government expenditure on goods and services and not with gross domestic investment.

The National Income also showed more than a twofold gain between 1939 and 1944, although the changes in its composition were rather less marked, as indicated in the following table:

1. Gross national saving is defined as the portion of Gross National Product which is not used for current consumption. In addition to personal saving, it includes the government surplus (or deficit), undistributed corporation profits, and depreciation allowances and other business costs. Gross national saving is equal to gross investment which is defined as the portion of current production used to increase and maintain the country's stock of capital goods at home and net assets abroad.

	1939		1944	
	Million Dollars	Percent	Million Dollars	Percent
Salaries, wages and supplementary labour income	2,575	58.9	4,940	50.3
Military pay and allowances	32	.7	1,068	10.9
Investment income	917	21.0	1,829	18.6
Accrued net income of farm operators from farm production	385	8.8	1,185	12.0
Net income of other unincorporated business	464	10.6	804	8.2
Net National Income At Factor Cost	4,373	100.0	9,826	100.0

Owing to the absorption of much of the labour force by the armed services, the proportion of National Income paid as wages and salaries was reduced. Compared with 1939 accrued net income of farm operators increased, but its movement over the period was characteristically erratic. It was noted above that in 1939 investment income was an unusually high proportion of National Income. It remained high during the war period, although it

declined in 1944. Profits after taxes, however, were only moderately greater than they had been in 1939.

Personal Income increased by 108 per cent between 1939 and 1944 compared with a rise of 125 per cent in the National Income. Significant changes occurred in the disposition of Personal Income during this period, and these are indicated in the following table:

	1939		1944	
	Million Dollars	Percent	Million Dollars	Percent
Personal direct taxes	112	2.6	838	9.3
Personal expenditure on consumer goods and services	3,904	90.4	6,187	68.7
Personal saving	304	7.0	1,977	22.0
Personal Income	4,320	100.0	9,002	100.0

Direct taxes absorbed 9.3 per cent of Personal Income in 1944 compared with 2.6 per cent in 1939. At the same time, war savings campaigns, compulsory saving plans, shortages, and the rationing of goods, all combined to bring about a very high rate of personal saving, which reached the unprecedented level of almost \$2 billion in 1944, or 22 per cent of Personal Income. In spite of these high levels of taxation and personal saving, however, personal expenditure on consumer goods and services exceeded 1939 by 58 per cent in value, and 32 per cent in volume terms.

High rates of taxation, both direct and indirect, and the expanding tax base, resulted in a huge growth in total government revenues. In 1944, revenues of all governments combined amounted to \$3,301 million, or 34 per cent of the National Income, compared with \$1,078 million in 1939. Despite this large growth in revenue, however, the war period was marked by a succession of very large government deficits (see Chart XI). In 1944, the federal

government sustained a deficit of \$2,706 million, offset in small measure, by a surplus of \$142 million at the provincial-municipal level.

The financing of these wartime deficits was largely carried out through the sale of bonds to the public. In this way, the large volume of personal and business saving was drawn upon. Since the high volume of business and personal saving was offset by the large government deficit, there was a substantial drop in total national saving which in 1944 amounted to only \$745 million, or 6 per cent of the Gross National Product, compared with \$1,068 million, or 19 per cent in 1939.

In 1945, government purchases declined. In that year, however, the rise in personal consumption and in gross domestic investment, which was to continue during the post-war period, had its beginning. Among the components of investment expenditure, new residential construction and machinery purchases showed a marked increase in current

value and in volume. At the same time, however, there was a large contraction in inventories. On the whole, therefore, there was a small drop in the Gross National Expenditure, in current dollars, though in constant dollars the decline was more pronounced.

1946-1950

The post-war period of 1946 to 1948 must be viewed in the light of two fundamental considerations: the large volume of wartime savings accumulated by consumers and businesses, particularly the former; and the enormous backlog of deferred demand for all types of consumer and investment goods, generated by wartime shortages and restrictions. Accordingly, consumer expenditures rose to new high levels in the reconversion period, and business embarked on a capital expansion programme of large magnitude. The increases in expenditures of the personal and business sectors (while exports were maintained at a high level, after a decline from 1945 to 1946), offset the sharp declines in government expenditure on goods and services which might otherwise have brought about a serious fall in production and employment. The transition to a peacetime economy was thus accomplished with a minimum of dislocation and only a moderate and short-lived fall in the physical volume of production. But, the heavy demands on the economy by persons and business and from abroad, coupled with the fact that prices in export markets and costs of imported goods and materials were high and rising, exerted powerful upward pressures on the Canadian price level.

The first post-war year witnessed a large reduction in government expenditure on goods and services, which declined to \$1,832 million in 1946 from \$3,704 million in 1945. Exports also declined considerably, while imports were only slightly reduced. On the other hand, both consumer expenditure and gross domestic investment increased substantially and as a result Gross National Expenditure rose slightly in value terms, although in real terms a decline of 3 per cent took place.

While National Income remained approximately the same as in 1945, Personal Income rose by 5.6 per cent. This gain was more than accounted for by higher transfer payments from the federal government, mainly veterans' post-discharge benefits. The latter were an important additional factor in the rise of personal expenditure in the immediate post-war period, supplementing the large volume of liquid saving already referred to.

The increase in personal expenditure in 1946 from the previous year amounted to 17 per cent in value and 13 per cent in volume. The largest relative increase was in expenditure on durable goods which showed a gain of 75 per cent in terms of current dollars. At the same time, Personal Income rose by 6 per cent, while personal direct taxes declined slightly. Thus, there was a sharp drop of 39 per cent in personal saving. Despite this decline in personal

saving, however, gross national saving increased by \$882 million in 1946. This is explained by the fact that the government deficit which was \$1,687 million in 1945 was reduced to \$133 million in 1946, while gross business saving showed very little change.

With relaxation of controls in the second half of 1946 and their progressive removal during 1947, the latent pressures on prices became explicit and a sharp advance in the price level of about 10 per cent took place, from 1946 to 1947. Government expenditure continued to decline but this was more than offset by large increases in the other components of Gross National Expenditure. In particular, a very substantial addition was made to physical plant and equipment in this year.

Late in 1947, following a rapid loss in Canadian official gold and foreign exchange reserves, emergency exchange conservation measures, designed to restrict imports and other expenditures in United States dollars, were instituted. Contributing to the loss in reserves was the fact that a large amount of Canada's exports overseas was financed by the export credit program which had been established in 1946; at the same time, there was a high and rising level of imports from the United States which required cash payment.

Personal expenditure continued to rise sharply in terms of current value and more moderately in volume, and personal saving again declined substantially.

Despite this decline in personal saving, national saving rose considerably. This was mainly due to the emergence of a large government surplus¹, in contrast to the deficits¹ in 1946 and the war years; government revenues continued to rise, while expenditures had fallen off.

During 1948, demand continued to press capacity, while the impact of rising import prices continued strong. Removal of Canadian export embargoes on coarse grains, cattle and beef, exposed Canada's agricultural supplies and prices more fully to the influence of the high United States price level.

The volume of exports increased somewhat, while their rise in current dollars was substantial. On the other hand, largely as a result of the emergency exchange conservation measures, referred to above, a decline of 12 per cent in the physical volume of imports took place, although the current dollar value rose slightly.

Most of the reduction in imports was concentrated in the field of consumer goods. Although the current value of personal expenditure on consumer goods and services rose by nearly 10 per cent this was entirely due to price increases, and in physical terms there was a decline of some 2 per cent. On the other hand, investment in new construction, and machinery and equipment continued to show marked increases in physical terms, as well as in current value. Government expenditure on goods and services rose moderately in physical terms and considerably more in terms of current dollars.

1. See footnote, page 17.

There was a sharp increase in personal saving and in undistributed corporation profits. These were supplemented by a large government surplus so that gross national saving increased by 22 per cent.

By 1949, supply and demand forces were apparently coming into balance. In particular, external influences eased their upward pressures on the Canadian price level; the rise in export prices during 1949 was modest, as was that of import prices. In contrast with the situation during 1947 and 1948, which witnessed sharp price increases of approximately 11 per cent per year, the price level in Canada increased by only 5 per cent from 1948 to 1949.

It is interesting to note that, broadly speaking, Canada did not show serious effects from the recession which took place in the United States in 1949. It is difficult to make precise comparisons of the years 1948 and 1949 because Newfoundland is included for the first time in the figures of the latter year, but even if this is taken into consideration, some increase in the physical volume of output is shown. Thus, there was an increase of 3 per cent in the Gross National Product in constant dollars from 1948 to 1949, and less than one-half of this increase is accounted for by Newfoundland.

While there was some decline in both the value and volume of exports, most of the other components of Gross National Expenditure showed increases. Consumer expenditures were stimulated by special payments in the form of refundable taxes and large grain equalization and adjustment payments, and by a reduction in income taxes. There were considerable increases in the physical volume and current value of investment in durable assets, but additions to physical stocks of inventories were moderate.

Among the notable features of the Gross National Expenditure in 1950 were the large investment in inventories and a sharp rise in imports relative to exports, resulting in a net deficit on current international account, the first since 1933. The national output increased between 4 and 5 per cent in physical volume, while the rise in value was about 10 per cent.

The rate of inventory accumulation in 1950 was very high even if price movements are taken into account, reflecting, in the main, the influence of the outbreak of hostilities in Korea.

A major factor contributing to the deficit on current international account was a substantial rise in merchandise imports from 1949 to 1950, both in value and volume. This increase was related to the rising levels of income and expenditure in Canada, the devaluation of the Canadian dollar in September 1949, the easier supply situation in the United Kingdom and other European countries, and high

prices of essential primary commodities elsewhere overseas. At the same time, although merchandise exports to the United States rose sharply, there was a substantial reduction in exports to the sterling area, so that total merchandise exports rose moderately in value and remained about the same in volume. The decline in exports to the sterling area was associated with the imposition of import restrictions on purchases in dollar area countries and the devaluation of sterling currencies in September 1949. Other important factors contributing to the deficit were larger payments of dividends to non-residents and lower net travel receipts.

It is interesting to note that the net negative foreign balance, of over \$300 million, in 1950 was approximately as large as that of the year 1929; but in relative terms it was much less important. In 1950, the net foreign balance was 1.7 per cent of the Gross National Product, while in 1929 it accounted for 5.1 per cent.

Personal expenditure on consumer goods and services increased substantially, by 8 per cent, in terms of current dollars, and by nearly 4 per cent in physical terms. Major gains were recorded in purchases of many durable goods, particularly of automobiles, which rose by approximately 60 per cent over 1949, in terms of current dollars.

Since the rise in Disposable Income was more moderate than the rise in personal expenditure there was a considerable decline in personal saving. This decline was, however, more than offset by increases in the other elements of gross national saving, so that the latter rose by 14 per cent. The large government surplus, which had been a feature during the three previous years, was maintained.

In summary, the period from 1946 to 1950 is notable for its rapid transition from the war years to peacetime patterns of expenditure and income at high levels of economic activity. Both gross domestic investment and consumer expenditure were at high levels, and accounted for proportions of Gross National Expenditure characteristic of pre-war prosperous years. Exports and imports were also at high levels; the decline in their relative position referred to in the first part of the discussion on trends took place since 1946. The relative position of government expenditure on goods and services after the year 1946 was very similar to the peacetime years of the late thirties. With some exceptions, already noted, the patterns of income and saving were also similar to those of pre-war years of prosperity. Another notable feature of the period is the rise in the price level by 34 per cent and the expansion in the physical volume of output by approximately 12 per cent; the Gross National Expenditure expressed in terms of current dollars increased by 50 per cent.

Part I
TABLES AND CHARTS

Section 1
INCOME AND EXPENDITURE ACCOUNTS

A. Summary Tables

TABLE 1. National Income and Gross National Product 1926-1950¹

No.		1926	1927	1928	1929	1930	1931	1932	1933	1934	1935
		(millions of dollars)									
1	Wages, Salaries and Supplementary Labour Income	2,358	2,497	2,705	2,929	2,775	2,398	1,965	1,778	1,928	2,066
2	Military Pay and Allowances	7	7	7	8	8	8	8	8	8	9
3	Investment Income	685	754	872	836	621	377	204	299	463	529
	Net Income of Unincorporated Business:										
4	Accrued Net Income of Farm Operators from Farm Production ²	619	612	655	408	323	96	108	74	174	222
5	Net Income of Non-farm Unincorporated Business ³	516	547	584	608	556	454	345	293	324	362
6	Net National Income at Factor Cost	4,185	4,417	4,823	4,789	4,283	3,333	2,630	2,452	2,897	3,188
7	Indirect Taxes Less Subsidies	812	634	679	681	593	557	537	537	577	585
8	Depreciation Allowances and Similar Business Costs	556	600	659	709	684	618	566	547	503	520
9	Residual Error of Estimate	-61	-4	-56	-13	-14	52	34	16	57	52
10	Gross National Product at Market Prices	5,294	5,647	6,105	6,166	5,546	4,560	3,767	3,552	4,034	4,345

Footnotes:

1. Includes Newfoundland, for the years 1949 and 1950, throughout this publication. In 1948, the last year before accession, Newfoundland's Gross National Product was about \$175 million.

2. This item includes the undistributed earnings of the Canadian Co-operative Wheat Producers and the Canadian Wheat Board, and an inventory valuation adjustment for grain in these channels, on a calendar year basis. See footnote (4), Table 40.

3. Includes net income of independent professional practitioners.

TABLE 2. Gross National Expenditure 1926-1950

No.		1926	1927	1928	1929	1930	1931	1932	1933	1934	1935
		(millions of dollars)									
1	Personal Expenditure on Consumer Goods and Services	3,687	3,919	4,194	4,393	4,204	3,646	3,108	2,887	3,077	3,243
2	Government Expenditure on Goods and Services ¹	521	567	597	682	767	738	643	526	568	603
	Gross Domestic Investment: ²										
3	New Residential Construction	212	217	236	247	204	168	96	76	98	114
4	New Non-residential Construction	240	299	411	486	381	264	121	79	92	118
5	New Machinery and Equipment	357	433	489	597	469	261	145	84	116	146
6	Change in Inventories	88	218	157	61	154	290	-216	-82	70	47
7	Exports of Goods and Services ³	1,650	1,618	1,773	1,632	1,286	967	804	826	1,018	1,143
8	Deduct: Imports of Goods and Services	-1,522	-1,629	-1,808	-1,945	-1,625	-1,142	-901	-828	-948	-1,017
9	Residual Error of Estimate	61	5	56	13	14	52	-33	-16	-57	52
10	Gross National Expenditure at Market Prices	5,294	5,647	6,105	6,166	5,546	4,560	3,767	3,552	4,034	4,345

Footnotes:

1. Includes outlay on new durable assets such as building and highway construction by governments, other than government business enterprises. Also includes U.N.R.R.A., Mutual Aid and Military Relief, and the change in inventories of government commodity agencies. See also footnote to Table 9.

2. Includes capital expenditures by private and government business enterprises, private non-commercial institutions, and outlays on new residential construction by individuals. See Table 41, and footnote (1) above.

3. Excludes U.N.R.R.A., Mutual Aid, and Military Relief — See footnote (1) above.

TABLE 1. National Income and Gross National Product 1926-1950¹

1936	1937	1938	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	No.
(millions of dollars)															
2,225	2,518	2,494	2,575	2,929	3,575	4,242	4,783	4,940	4,953	5,323	6,221	7,170	7,761	8,271	1
9	9	9	32	193	386	641	910	1,068	1,117	340	83	82	115	137	2
658	793	704	917	1,128	1,484	1,761	1,801	1,829	1,859	1,975	2,269	2,464	2,445	2,921	3
197	290	359	385	492	490	988	805	1,185	1,010	1,112	1,223	1,518	1,504	1,579	4
398	452	452	464	521	628	705	744	804	901	1,071	1,189	1,326	1,369	1,498	5
3,487	4,062	4,018	4,373	5,263	6,563	8,337	9,043	9,826	9,840	9,821	10,985	12,560	13,194	14,406	6
660	704	638	733	830	1,054	1,085	1,117	1,111	1,003	1,269	1,604	1,772	1,830	1,986	7
534	572	581	610	720	858	1,002	988	957	928	903	1,118	1,276	1,437	1,614	8
20	17	-4	-9	59	42	115	35	60	79	33	61	5	1	23	9
4,701	5,355	5,233	5,707	6,872	8,517	10,539	11,183	11,954	11,850	12,026	13,768	15,613	16,462	18,029	10

Cross-references:

- Line 1. For industrial and geographical distributions, see Tables 21 and 28, respectively.
 " 3. For industrial distribution, see Tables 22 and 23; for analysis of corporation profits, see Table 38; See also Investment Income Appropriation Account, Tables 14 and 15.
 " 4. For reconciliation with "Net Income of Farm Operators from Farming Operations" published by the Agriculture Division, D.B.S. see Table 40.
 " 5. For industrial and geographical distribution, see Tables 24 and 30 respectively.
 " 6. For industrial distribution, see Table 20. For sector accounts consolidation, see Table 18.
 " 7. For detail of subsidies, see Table 35. See also Table 33.
 " 8. For classifications by "type", and "form of organization", see Table 39.
 " 10. For sector accounts consolidation, see Table 18.

TABLE 2. Gross National Expenditure 1926-1950

1936	1937	1938	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	No.
(millions of dollars)															
3,457	3,777	3,815	3,904	4,399	5,053	5,514	5,727	6,187	6,811	7,977	9,173	10,112	10,963	11,862	1
600	671	720	735	1,165	1,689	3,726	4,227	5,022	3,704	1,832	1,570	1,798	2,128	2,314	2
139	176	159	185	200	233	194	174	225	272	371	506	637	742	801	3
150	190	171	166	210	288	354	366	257	252	443	599	818	903	1,010	4
180	281	275	254	408	557	496	305	377	462	584	1,016	1,230	1,323	1,378	5
50	94	-10	331	369	247	316	-109	-46	-260	519	947	605	231	995	6
1,428	1,591	1,356	1,451	1,808	2,467	2,361	3,444	3,561	3,597	3,210	3,638	4,054	4,011	4,173	7
-1,183	-1,409	-1,257	-1,328	-1,629	-1,976	-2,307	-2,917	-3,569	-2,910	-2,878	-3,621	-3,636	-3,837	-4,482	8
-20	-16	4	9	-58	-41	-115	-34	-60	-78	-32	-60	-5	-2	-22	9
4,701	5,355	5,233	5,707	6,872	8,517	10,539	11,183	11,954	11,850	12,026	13,768	15,613	16,462	18,029	10

Cross references:

- Line 1. For details of expenditure on commodities and services, and imputed expenditure out of income in kind, see Tables 36 and 37 respectively.
 " 2. For total government expenditures relating to the National Accounts (excluding inter-governmental transfers) see Table 9. For total government expenditures by level of government, see Table 33.
 " 3, 4 and 5. For reconciliation with figures published by the Department of Trade and Commerce in "Private and Public Investment in Canada, 1926-1951", see Table 41. For industrial distribution, see Table 25. For National Saving and Investment Account, see Tables 16 and 17.
 " 6. For industrial distribution, see Table 26. For inventory valuation adjustment implicitly included in this item (and in line 10), see footnote, Table 4.
 " 7 and 8. For reconciliation with figures published by the Balance of Payments Section, D.B.S. in reports on "The Canadian Balance of International Payments", see Table 42. See also Non-Residents' Account, Tables 12 and 13.
 " 10. For sector accounts consolidation, see Table 19.

TABLE 3. Gross National Expenditure in Constant (1935-1939) Dollars, 1926-1950¹

No.		1926	1927	1928	1929	1930	1931	1932	1933	1934	1935
		(millions of dollars)									
1	Personal Expenditure on Consumer Goods and Services	3,055	3,318	3,545	3,685	3,557	3,385	3,152	3,055	3,212	3,375
2	Government Expenditure on Goods and Services	487	532	556	629	713	705	644	529	574	604
	Gross Domestic Investment:										
3	New Residential Construction	197	202	214	214	181	160	100	84	103	121
4	New Non-Residential Construction	228	284	382	439	357	267	128	86	99	125
5	New Machinery and Equipment	337	424	482	575	471	273	152	89	124	153
6	Change in Inventories	119	216	158	48	126	- 159	- 80	- 125	23	48
7	Exports of Goods and Services	1,207	1,220	1,391	1,314	1,157	1,055	974	982	1,101	1,218
8	Deduct: Imports of Goods and Services	-1,134	-1,274	-1,447	-1,578	-1,448	-1,162	-939	-911	-968	-1,060
9	Sub Total	4,496	4,922	5,281	5,326	5,114	4,524	4,131	3,789	4,268	4,584
10	Residual Error of Estimate	52	4	49	11	13	- 49	- 35	- 17	- 60	- 54
11	Gross National Expenditure	4,548	4,926	5,330	5,337	5,127	4,475	4,096	3,772	4,208	4,530

i. Includes Newfoundland in 1949 and 1950. See footnote 1, Table 1.

TABLE 4. Implicit Price Deflators — Gross National Expenditure, 1926-1950¹
(1935-1939 = 100)

No.		1926	1927	1928	1929	1930	1931	1932	1933	1934	1935
1	Personal Expenditure on Consumer Goods and Services	120.7	118.1	118.3	119.2	118.2	107.7	98.6	94.5	95.8	96.1
2	Government Expenditure on Goods and Services	107.0	106.6	107.4	108.4	107.6	104.7	99.8	99.4	99.0	99.8
	Gross Domestic Investment:										
3	New Residential Construction	107.4	107.6	110.2	115.4	112.4	104.7	96.0	90.2	94.8	94.3
4	New Non-Residential Construction	105.3	105.3	107.6	110.7	106.7	98.9	94.5	91.9	92.9	94.4
5	New Machinery and Equipment	105.9	102.1	101.5	103.8	99.6	95.6	95.4	94.4	93.5	95.4
6	Exports of Goods and Services	136.7	132.6	127.4	124.2	111.1	91.7	82.5	84.1	92.5	93.8
7	Deduct: Imports of Goods and Services	134.2	127.9	125.0	123.3	112.2	98.3	95.9	90.9	97.9	95.9
8	Residual Error of Estimate	117.3	115.3	114.6	115.3	111.9	105.8	94.5	93.7	94.9	95.5
9	Gross National Expenditure	117.3	115.3	114.6	115.3	111.9	105.8	94.5	93.7	94.9	95.5

1. The price deflators of Table 4 are derived by dividing the value figures of Table 2 by the corresponding constant dollar estimates of Table 3. Gross National Expenditure is calculated as follows:

1	Sub-total Gross National Expenditure in Current Dollars excluding Residual Error (see Table 2)	5,233	5,642	6,049	6,153	5,532	4,612	3,800	3,568	4,091	4,397
2	Inventory Valuation Adjustment	39	32	3	-12	193	175	105	-19	-40	-18
3	Equals Adjusted Value of Gross National Expenditure	5,272	5,674	6,052	6,141	5,725	4,787	3,905	3,549	4,051	4,379
4	Divide by Sub-total in Constant 1935-1939 Dollars (line 9, Table 3)	4,496	4,922	5,281	5,326	5,114	4,524	4,131	3,789	4,268	4,584
5	Equals Implicit Price Index (line 9, Table 4)	117.3	115.3	114.6	115.3	111.9	105.8	94.5	93.7	94.9	95.5

TABLE 3. Gross National Expenditure in Constant (1935-1939) Dollars, 1926-1950¹

1936	1937	1938	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	No.
(millions of dollars)															
3,538	3,747	3,718	3,820	4,127	4,432	4,622	4,679	5,030	5,471	6,189	6,478	6,368	6,612	6,857	1
603	666	718	742	1,122	1,567	3,138	3,517	4,001	2,814	1,484	1,149	1,189	1,321	1,382	2
143	169	156	180	183	191	147	122	150	177	225	276	303	332	343	3
155	182	167	164	200	260	298	295	204	199	330	401	486	516	546	4
187	273	267	247	370	470	406	238	298	374	467	723	775	788	768	5
- 113	35	127	338	316	53	214	- 120	- 77	- 203	226	240	85	48	386	6
1,456	1,482	1,350	1,494	1,681	2,194	1,945	2,728	2,614	2,548	2,079	2,053	2,104	2,016	2,012	7
-1,211	-1,337	-1,261	-1,330	-1,456	-1,649	-1,730	-2,056	-2,450	-2,004	-1,930	-2,113	-1,869	-1,910	-2,103	8
4,758	5,217	5,242	5,635	6,543	7,518	9,040	9,403	9,770	9,376	9,070	9,207	9,441	9,723	10,191	9
- 20	- 18	4	9	- 56	- 37	- 99	- 29	- 49	- 61	- 25	- 42	- 3	- 1	- 13	10
4,738	5,201	5,246	5,664	6,487	7,481	8,941	9,374	9,721	9,315	9,045	9,165	9,438	9,722	10,178	11

TABLE 4. Implicit Price Deflators - Gross National Expenditure, 1926-1950¹
(1935-1939 = 100)

1936	1937	1938	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	No.
97.7	100.8	102.6	102.2	106.6	114.0	119.3	122.4	123.0	124.5	128.9	141.6	158.8	165.8	173.0	1
99.5	100.8	100.3	99.1	103.8	107.8	118.7	120.2	125.5	131.6	123.5	136.6	151.2	161.1	167.4	2
97.0	104.2	101.9	102.8	109.3	121.7	131.9	142.7	150.4	154.1	164.9	183.6	210.5	223.7	233.8	3
96.8	104.4	102.4	101.2	105.0	110.8	118.8	124.1	126.0	126.6	134.2	149.4	168.3	175.0	185.0	4
96.3	102.9	103.0	102.8	110.3	118.5	122.2	128.2	126.5	123.5	125.1	140.5	158.7	167.9	179.4	5
98.1	107.4	100.4	97.1	107.6	112.4	121.4	126.3	136.2	141.2	154.4	177.2	192.7	199.0	207.4	6
97.7	105.4	99.7	99.9	111.9	119.8	133.4	141.9	145.7	145.2	149.1	171.4	194.5	200.9	213.1	7
98.5	101.3	100.8	100.0	104.1	111.7	116.7	118.7	122.4	127.0	130.1	143.7	159.7	167.7	174.0	8
98.5	101.3	100.8	100.0	104.1	111.7	116.7	118.7	122.4	127.0	130.1	143.7	159.7	167.7	174.0	9

For a description of sources and methods used in arriving at the constant dollar figures see Part II, Section 6. The implicit price deflator of total

4,721	5,371	5,229	5,696	6,930	8,558	10,654	11,217	12,014	11,928	12,058	13,828	15,618	16,464	18,051	1
-34	-86	54	-44	-120	-161	-101	-56	-56	-24	-258	-594	-544	-158	-316	2
4,687	5,285	5,283	5,654	6,810	8,397	10,553	11,161	11,958	11,904	11,800	13,234	15,074	16,306	17,735	3
4,758	5,217	5,242	5,655	6,543	7,518	9,040	9,403	9,770	9,376	9,070	9,207	9,441	9,723	10,191	4
98.5	101.3	100.8	100.0	104.1	111.7	116.7	118.7	122.4	127.0	130.1	143.7	159.7	167.7	174.0	5

TABLE 5. Relation Between Net National Income at Factor Cost, Personal Income, Personal Disposable Income and Personal Saving, 1926-1950

No.		1926	1927	1928	1929	1930	1931	1932	1933	1934	1935
		(millions of dollars)									
1	Net National Income at Factor Cost	4,185	4,417	4,823	4,789	4,283	3,333	2,630	2,452	2,897	3,188
2	Add—Transfer Payments (excluding interest on transfer portion of public debt and charitable contributions from corporations) ¹	89	93	103	111	124	158	182	209	237	236
3	Add—Transfer Portion of Interest on the Public Debt ¹	153	152	146	143	145	150	166	174	176	176
4	Deduct—Earnings Not Paid Out to Persons ²	- 335	- 357	- 454	- 386	- 189	51	87	8	- 157	- 227
5	Equals—Personal Income	4,092	4,305	4,618	4,657	4,363	3,692	3,065	2,843	3,153	3,373
6	Deduct—Personal Direct Taxes	- 53	- 59	- 59	- 68	- 71	- 63	- 64	- 69	- 64	- 80
7	Equals—Personal Disposable Income	4,039	4,246	4,559	4,589	4,292	3,629	3,001	2,774	3,089	3,293
8	Deduct—Personal Expenditure on Consumer Goods and Services	- 3,687	- 3,919	- 4,194	- 4,393	- 4,204	- 3,646	- 3,108	- 2,887	- 3,077	- 3,243
9	Equals—Personal Saving	352	327	365	196	88	- 17	- 107	- 113	12	50
10	Change in Farm Inventories (Value of Physical Change)	- 1	60	- 22	- 129	46	- 30	14	- 33	- 8	- 1
11	Personal Saving excluding Change in Farm Inventories	353	267	387	325	42	- 13	- 121	- 80	20	51

Footnotes:

1. Since National Income excludes transfer payments and Personal Income includes them, Items 2 and 3 are added back here. However, charitable contributions from corporations are not added since they are included in National Income.

2. This item includes: Undistributed corporation profits, corporation profits taxes, withholding taxes, government investment income, adjustment on grain transactions, and employer and employee contributions to social insurance and government pension funds.

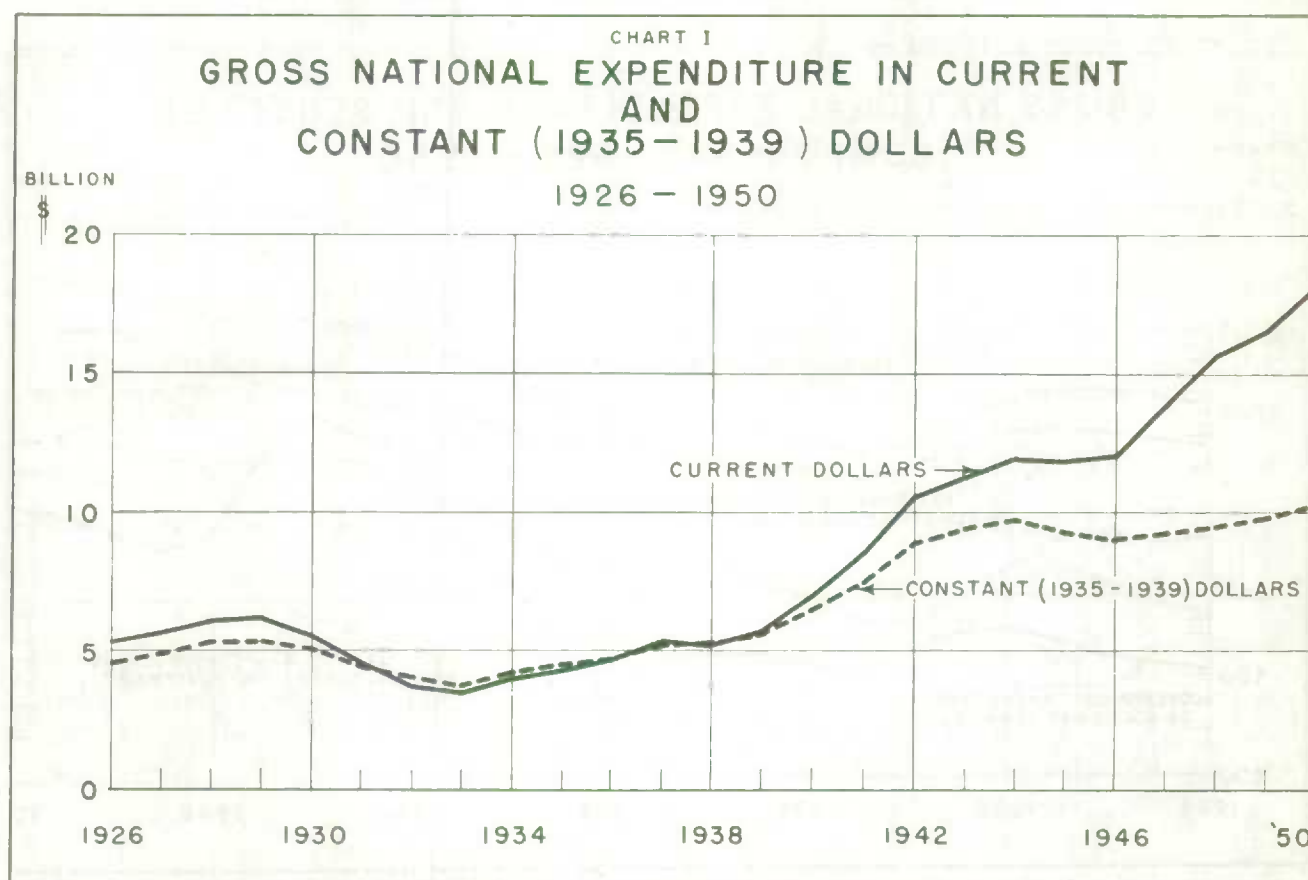


TABLE 5. Relation Between Net National Income at Factor Cost, Personal Income, Personal Disposable Income and Personal Saving, 1926-1950

1936	1937	1938	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	No.
(millions of dollars)															
3,487	4,062	4,018	4,373	5,263	6,563	8,337	9,043	9,826	9,840	9,821	10,985	12,560	13,194	14,406	1
238	251	237	241	222	208	236	221	270	559	1,117	857	882	971	1,035	2
176	173	166	172	171	181	199	261	319	402	455	463	464	475	442	3
- 324	- 444	- 331	- 466	- 709	- 1,056	- 1,297	- 1,349	- 1,413	- 1,562	- 1,632	- 1,915	- 1,963	- 1,883	- 2,466	4
3,577	4,042	4,090	4,320	4,947	5,896	7,475	8,176	9,002	9,239	9,761	10,390	11,943	12,757	13,417	5
- 95	- 112	- 115	- 112	- 139	- 296	- 495	- 698	- 838	- 809	- 796	- 791	- 822	- 789	- 735	6
3,482	3,930	3,975	4,208	4,808	5,600	6,980	7,478	8,164	8,430	8,965	9,599	11,121	11,968	12,682	7
-3,457	- 3,777	- 3,815	- 3,904	- 4,399	- 5,053	- 5,514	- 5,727	- 6,187	- 6,811	- 7,977	- 9,173	- 10,112	- 10,963	- 11,862	8
25	153	160	304	409	547	1,466	1,751	1,977	1,619	988	426	1,009	1,005	820	9
- 56	- 11	28	60	75	- 48	354	- 125	- 103	- 231	- 57	- 79	- 65	- 72	131	10
81	164	132	244	334	595	1,112	1,876	2,080	1,850	1,045	505	1,074	1,077	689	11

Cross references:

- Line 1. For detail, see Table 1; for sector accounts consolidation, see Table 18.
 " 2. For detail, see Table 34.
 " 5. For detail, see Table 6; for geographical distribution, see Table 27.
 " 6. For detail, see Table 7.
 " 8. For detail, see Tables 36 and 37.
 " 9. See also Tables 7 and 16.

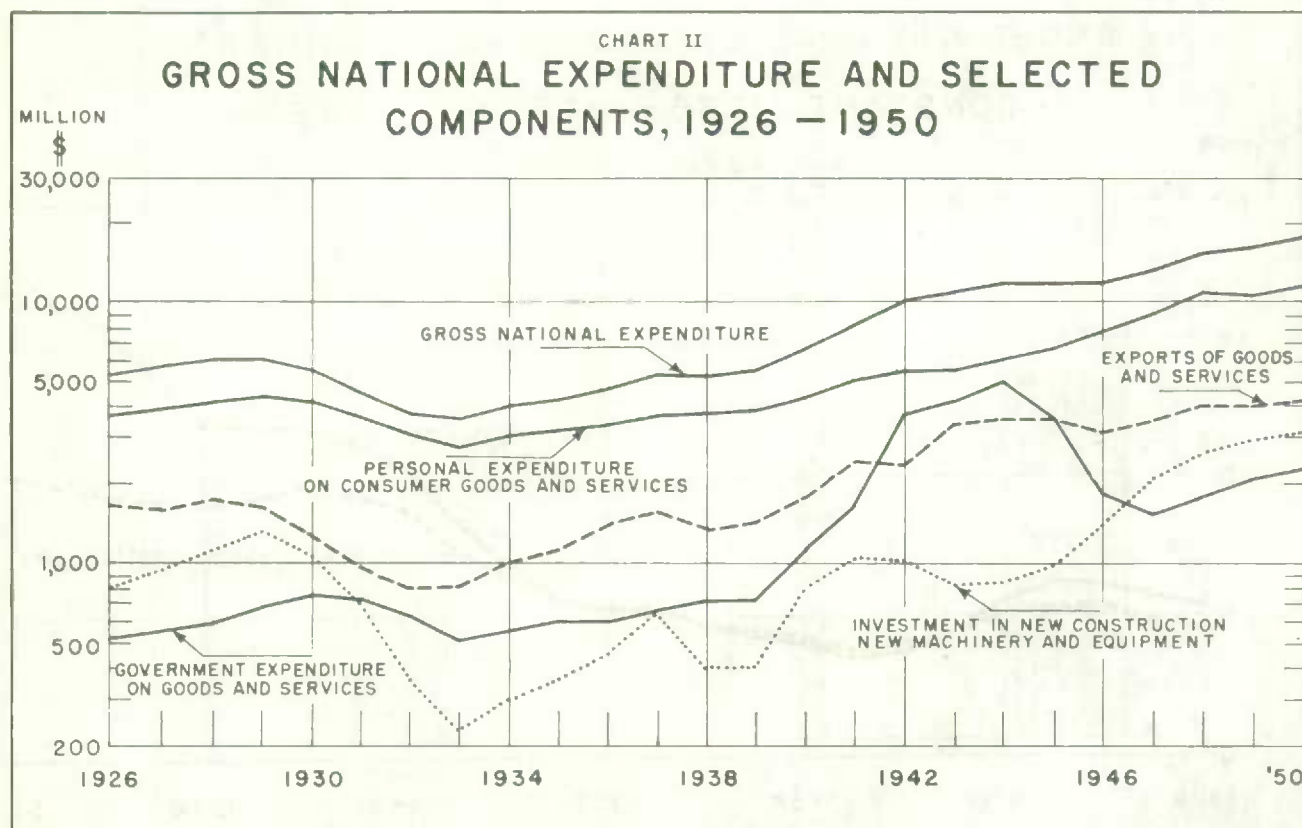
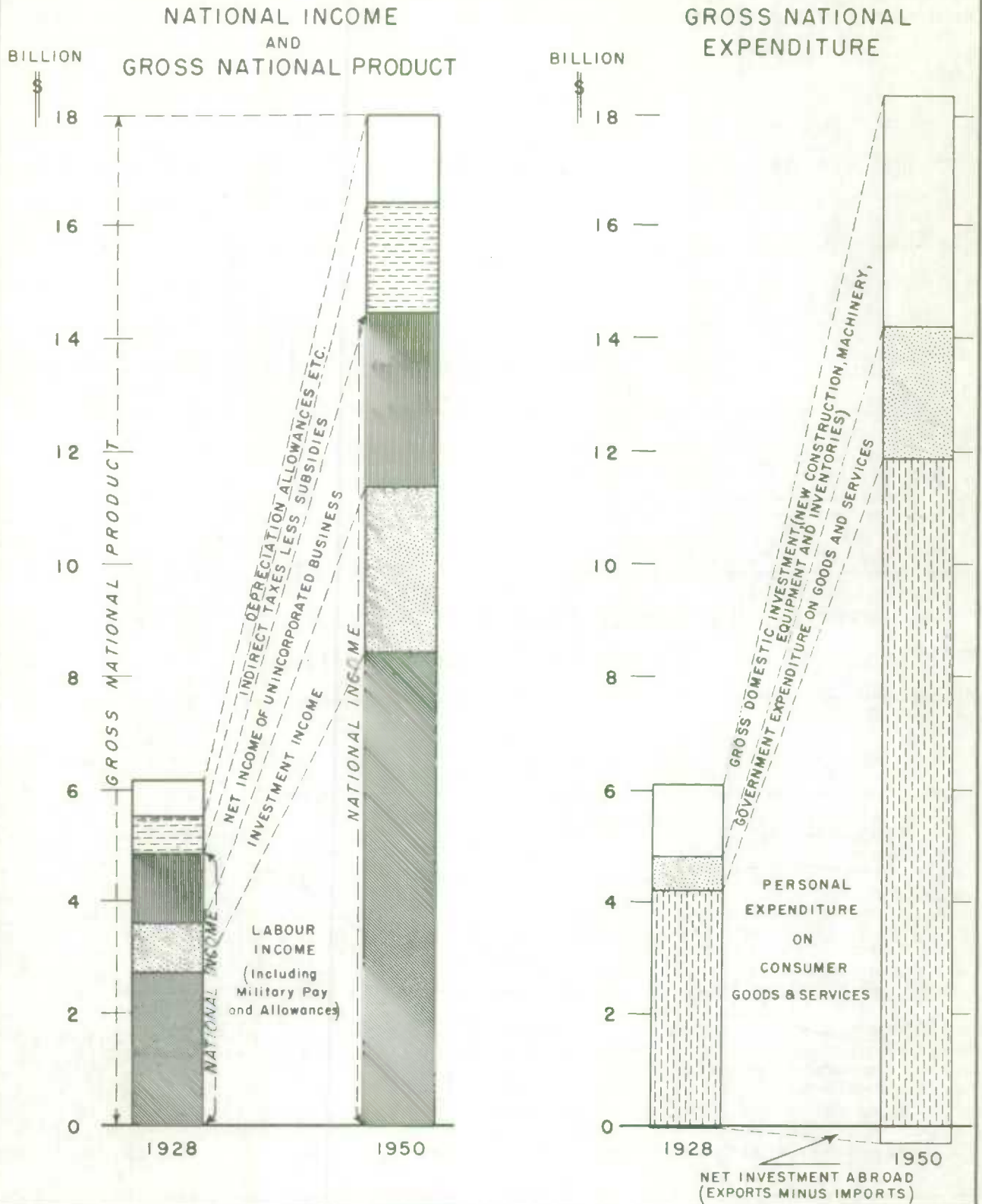


CHART III

NATIONAL INCOME, GROSS NATIONAL PRODUCT AND GROSS NATIONAL EXPENDITURE 1928 AND 1950



**B. Analysis of Income and Expenditure Accounts
by Sectors of the Canadian Economy**

TABLE 6. Personal Income and Expenditure Account, 1926-1950
Income

No.	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935
	(millions of dollars)									
1 Wages, Salaries and Supplementary Labour Income:										
(a) From business (27a)	2,001	2,121	2,305	2,496	2,319	1,958	1,570	1,423	1,549	1,680
(b) From governments (19bi)	235	251	266	284	305	306	283	253	271	275
(c) From persons (8b)	122	125	134	149	151	134	112	102	108	111
(d) Deduct employer and employee contributions to social insurance and government pension funds (16)	-17	-20	-22	-27	-29	-26	-23	-21	-23	-26
2 Military Pay and Allowances (19bii)	7	7	7	8	8	8	8	8	8	9
3 (a) Net income received by farm operators from farm production ¹ (27b)	607	619	639	407	318	119	119	103	195	226
(b) Net income of non-farm unincorporated business (27c)	516	547	584	608	556	454	345	293	324	362
4 Interest, dividends and net rental income of persons ² (45a)	528	558	597	616	608	579	467	471	482	497
5 Transfer Payments (excluding interest):										
(a) From governments (20b)	74	77	87	93	112	141	160	181	220	221
(b) Charitable contributions from corporations (45b)	4	4	5	5	3	2	2	2	2	3
(c) Net bad debt losses of corporations (49c)	15	16	16	18	12	17	22	28	17	15
6 Total	4,092	4,305	4,618	4,657	4,363	3,692	3,065	2,843	3,153	3,373

1. This item differs from line 4 of Table 1 in that it includes adjustment and equalization payments to farmers by the Canadian Wheat Board, but excludes undistributed earnings (and the inventory valuation adjustment) of the Canadian Co-operative Wheat Producers and the Canadian Wheat Board.

TABLE 7. Personal Income and Expenditure Account, 1926-1950
Expenditure

No.	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935
	(millions of dollars)									
7 Personal Direct Taxes:										
(a) Income taxes (11a)	22	28	30	34	33	33	35	38	34	42
(b) Succession duties (11b)	16	16	12	16	21	15	11	13	12	20
(c) Miscellaneous (11c)	15	15	17	18	17	15	18	18	18	18
8 Purchase of Goods and Services:										
(a) From business (23a)	3,420	3,647	3,912	4,087	3,918	3,416	2,927	2,722	2,898	3,047
(b) Direct services (1c)	122	125	134	149	151	134	112	102	108	111
(c) Tourist and travel expenditure:										
(i) U.S.A. (33ai)	70	72	72	81	67	51	30	30	36	48
(ii) U.K. and other Commonwealth (33aii)	29	28	26	27	25	20	19	14	14	16
(iii) Other countries (33aiii)										
(d) Other expenditure abroad (33b)	46	47	50	49	43	25	20	19	21	21
9 Personal Saving ¹ (48)	352	327	365	196	88	-17	-107	-113	12	50
10 Total	4,092	4,305	4,618	4,657	4,363	3,692	3,065	2,843	3,153	3,373

1. This series includes changes in farm inventories. See Table 5.

TABLE 6. Personal Income and Expenditure Account, 1926-1950
Income

1936	1937	1938	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	No.
(millions of dollars)															
1,829	2,097	2,044	2,126	2,458	3,084	3,704	4,200	4,328	4,292	4,573	5,396	6,217	6,679	7,126	1 (a)
282	300	324	325	346	364	425	481	509	549	618	674	777	876	931	2 (b)
114	121	126	124	125	127	113	102	103	112	132	151	176	206	214	3 (c)
- 28	- 34	- 33	- 35	- 39	- 69	- 114	- 128	- 133	- 136	- 149	- 181	- 224	- 239	- 259	4 (d)
9	9	9	32	193	386	641	910	1,068	1,117	340	83	82	115	137	5
221	296	354	435	459	490	1,035	855	1,206	940	1,090	1,161	1,627	1,600	1,444	6 (a)
398	452	452	464	521	628	705	744	804	901	1,071	1,189	1,326	1,369	1,498	7 (b)
510	545	573	602	655	668	718	779	836	893	957	1,043	1,058	1,157	1,266	8
224	237	226	229	207	194	222	210	259	546	1,106	839	863	950	1,012	9 (a)
4	5	4	6	7	10	12	12	11	12	12	17	22	23	25	10 (b)
14	14	11	12	15	14	14	11	11	13	11	18	19	21	23	11 (c)
3,577	4,042	4,090	4,320	4,947	5,896	7,475	8,176	9,002	9,239	9,761	10,390	11,943	12,757	13,417	6

2. Includes all government debt interest paid to persons.

TABLE 7. Personal Income and Expenditure Account, 1926-1950
Expenditure

1936	1937	1938	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	No.
(millions of dollars)															
47	56	63	62	91	239	433	631	772	733	711	695	717	677	612	7 (a)
27	37	31	28	23	29	37	38	39	47	54	61	58	55	63	8 (b)
21	19	21	22	25	28	25	29	27	29	31	35	47	57	60	9 (c)
3,243	3,539	3,570	3,667	4,183	4,833	5,271	5,439	5,844	6,403	7,611	8,798	9,759	10,528	11,388	10 (a)
114	121	126	124	125	127	113	102	103	112	132	151	176	206	214	11 (b)
54	65	66	67	40	18	24	34	56	81	130	152	113	164	190	12 (c)
21	22	17	13	3	3	2	2	2	2	4	12	16	21	23	13 (d)
25	30	3	1	-	-	-	-	-	-	1	3	4	7	9	14 (e)
25	30	33	32	48	72	104	150	182	213	99	57	44	37	38	15 (f)
25	153	160	304	409	547	1,466	1,751	1,977	1,619	988	426	1,009	1,005	820	16
3,577	4,042	4,090	4,320	4,947	5,896	7,475	8,176	9,002	9,239	9,761	10,390	11,943	12,757	13,417	10

TABLE 8. Government Revenue and Expenditure Account, 1926-1950¹
Revenue

No.		1926	1927	1928	1929	1930	1931	1932	1933	1934	1935
		(millions of dollars)									
11	Direct Taxes — Persons:										
	(a) Income taxes (7a)	22	28	30	34	33	33	35	38	34	42
	(b) Succession duties (7b)	16	16	12	16	21	15	11	13	12	20
	(c) Miscellaneous (7c)	15	15	17	18	17	15	18	18	18	18
12	Direct Taxes — Corporations:										
	(a) Income and excess profits taxes (45c)	34	38	45	48	40	33	32	37	52	65
13	Withholding Taxes (45d)	—	—	—	—	—	—	—	5	6	7
14	Indirect Taxes (28a)	614	637	684	686	600	575	546	545	585	608
15	Investment Income:										
	(a) Interest (45f)	63	67	69	74	75	70	71	75	72	76
	(b) Profits of government business enterprises (45e)	25	25	40	29	- 6	- 31	- 35	- 37	- 20	- 11
16	Employer and employee contributions to social insurance and government pension funds (1d)	17	20	22	27	29	26	23	21	23	26
17	Deficit (+) or Surplus (-) (on transactions relating to the National Accounts) ² (50)	- 56	- 47	- 84	- 9	222	311	277	174	190	172
18	Total ³	750	799	835	923	1,031	1,047	978	889	972	1,023

1. See also Table 32.

2. For a description of the difference between this item and the conventional budgetary surplus or deficit, see page 117.

TABLE 9. Government Revenue and Expenditure Account, 1926-1950¹
Expenditure

No.		1926	1927	1928	1929	1930	1931	1932	1933	1934	1935
		(millions of dollars)									
19	Purchase of Goods and Services:										
	(a) From business ² (23b)	201	227	239	298	355	321	243	156	181	215
	(b) Direct services:										
	(i) Wages and salaries (1b)	235	251	266	284	305	306	283	253	271	275
	(ii) Military pay and allowances (2)	7	7	7	8	8	8	8	8	8	9
	(iii) Interest (42a)	78	82	85	92	99	103	109	109	108	104
	(c) Direct military expenditure abroad, (excluding military pay) (all countries) (34a)	—	—	—	—	—	—	—	—	—	—
20	Transfer Payments:										
	(a) Interest (42b)	153	152	146	143	145	150	166	174	176	176
	(b) Other (5a)	74	77	87	93	112	141	160	181	220	221
21	Subsidies (28b)	2	3	5	5	7	18	9	8	8	23
22	Total	750	799	835	923	1,031	1,047	976	889	972	1,023

1. See also Table 33.

2. Includes change in inventories of government commodity agencies as follows:

1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950
(millions of dollars)										
9	-3	10	38	11	-2	-27	-16	-18	32	-19

Government commodity agencies include Commodity Prices Stabilization Corporation, Canadian Wool Board, Special Products Board, Meat Board, Dairy Products Board, Agricultural Prices Support Board and Fisheries Prices Support Board.

This item also includes Mutual Aid, U.N.R.R.A., and Military Relief, see "Official Contributions", Table 42.

TABLE 8. Government Revenue and Expenditure Account, 1926 - 1950¹
Revenue

1936	1937	1938	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	No.
(millions of dollars)															
47	56	63	62	91	239	433	631	772	733	711	695	717	677	612	11 (a)
27	37	31	28	23	29	37	38	39	47	54	61	58	55	63	(b)
21	19	21	22	25	28	25	29	27	29	31	35	47	57	60	(c)
83	101	94	115	327	510	629	640	598	599	654	701	685	731	901	12 (a)
9	10	10	10	13	24	29	27	27	29	29	35	41	47	54	13
674	714	700	716	883	1,128	1,178	1,328	1,378	1,265	1,505	1,784	1,847	1,907	2,050	14
75	75	73	71	70	77	88	99	105	119	120	113	127	165	153	15 (a)
16	12	-3	19	62	99	146	212	222	270	243	220	200	192	238	(b)
28	34	33	35	39	69	114	128	133	136	149	181	224	239	259	16
34	33	152	41	63	-65	1,561	1,777	2,566	1,687	133	-773	-746	-440	-558	17
1,014	1,091	1,174	1,119	1,596	2,138	4,240	4,909	5,867	4,914	3,629	3,052	3,200	3,630	3,832	18

3. It will be noted that, in addition to total revenue, this item includes the government deficit or surplus.

TABLE 9. Government Revenue and Expenditure Account, 1926 - 1950¹
Expenditure

1936	1937	1938	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	No.
(millions of dollars)															
208	262	287	275	511	771	2,404	2,123	2,080	1,298	701	717	845	1,040	1,140	19 (a)
282	300	324	325	346	364	425	481	509	549	618	674	777	876	931	(b)
9	9	9	32	193	386	641	910	1,068	1,117	340	83	82	115	137	(i)
101	100	100	103	102	110	111	110	104	110	99	96	94	97	106	(ii)
—	—	—	—	13	58	145	603	1,261	630	74	—	—	—	—	(c)
176	173	166	172	171	181	199	261	319	402	455	463	464	475	442	20 (a)
224	237	226	229	207	194	222	210	259	546	1,106	839	663	950	1,012	(b)
14	10	62	-17	53	74	93	211	267	262	236	180	75	77	64	21
1,014	1,091	1,174	1,119	1,596	2,138	4,240	4,909	5,867	4,914	3,629	3,052	3,200	3,630	3,832	22

TABLE 10. Business Operating Account, 1926-1950
Revenue

No.		1926	1927	1928	1929	1930	1931	1932	1933	1934	1935
		(millions of dollars)									
23	Sales to Residents:										
	(a) Persons (8a).....	3,420	3,647	3,912	4,087	3,918	3,416	2,927	2,722	2,898	3,047
	(b) Governments ¹ (19a).....	201	227	239	298	355	321	243	156	181	215
	(c) Business on capital account:										
	(i) New residential construction ² (53a).....	212	217	236	247	204	168	96	76	98	114
	(ii) New non-residential construction (53b).....	240	299	411	486	381	264	121	79	92	118
	(iii) New machinery and equipment (53c).....	357	433	489	597	469	261	145	84	116	146
	(iv) Change in inventories (53d).....	88	218	157	61	- 154	- 290	- 216	- 82	70	47
24	Sales to Non-Residents:										
	(a) U.S.A. (37ai).....	764	795	837	860	698	526	400	395	499	577
	(b) U.K. and other Commonwealth (37aii).....	854	782	890	711	529	393	367	393	462	502
	(c) Other countries (37aiii).....										
25	Residual Error of Estimate	61	5	56	13	14	- 52	- 33	- 16	- 57	- 52
26	Total	6,197	6,623	7,227	7,360	6,414	5,007	4,050	3,807	4,359	4,714

1. See footnote 2, Table 9.

TABLE 11. Business Operating Account, 1926-1950
Expenditure

No.		1926	1927	1928	1929	1930	1931	1932	1933	1934	1935
		(millions of dollars)									
27	Factor Costs:										
	(a) Wages, salaries and supplementary labour income (1a).....	2,001	2,121	2,305	2,496	2,319	1,958	1,570	1,423	1,549	1,680
	(b) Net income received by farm operators from farm production ¹ (3a).....	607	619	639	407	318	119	119	103	195	226
	(c) Net income of non-farm unincorporated business (3b).....	516	547	584	608	556	454	345	293	324	362
	(d) Adjustment on grain transactions ² (49d).....	12	- 7	16	1	5	- 23	- 11	- 29	- 21	- 4
	(e) Corporation profits (excluding interest and dividends from non-residents) ³ (40).....	393	446	520	516	300	144	3	112	258	307
	(f) Other investment income (excluding interest on the public debt) (41).....	422	442	496	489	511	412	357	304	308	324
28	Other Costs:										
	(a) Indirect taxes (14).....	614	637	684	686	600	575	546	545	585	608
	(b) Less subsidies (21).....	- 2	- 3	- 5	- 5	- 7	- 18	- 9	- 8	- 8	- 23
	(c) Depreciation allowances and similar business costs (49b).....	558	600	659	709	684	618	566	547	503	520
29	Purchases from Non-Residents:										
	(a) U.S.A. (32ai).....	779	817	946	1,024	764	475	347	303	366	384
	(b) U.K. and other Commonwealth (32aii).....	358	408	439	442	378	241	183	198	243	278
	(c) Other countries (32aiii).....										
30	Residual Error of Estimate	- 61	- 4	- 56	- 13	- 14	52	34	16	57	52
31	Total	6,197	6,623	7,227	7,360	6,414	5,007	4,050	3,807	4,359	4,714

1. See footnote 1, Table 6.

2. This item includes the undistributed earnings of the Canadian Co-operative Wheat Producers and the Canadian Wheat Board, and an inventory valuation adjustment for grain in these channels, on a calendar year basis. See also footnote 4, Table 40.

TABLE 10. Business Operating Account, 1926-1950
Revenue

1936	1937	1938	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	No.
(millions of dollars)															23
3,243	3,539	3,570	3,667	4,183	4,833	5,271	5,439	5,844	6,403	7,611	8,798	9,759	10,528	11,388	(a)
208	262	287	275	511	771	2,404	2,123	2,080	1,298	701	717	845	1,040	1,140	(b)
															(c)
139	176	159	185	200	233	194	174	225	272	371	506	637	742	801	(d)
150	190	171	166	210	288	354	366	257	252	443	599	818	903	1,010	(ii)
180	281	275	254	408	557	496	305	377	462	584	1,016	1,230	1,323	1,378	(iii)
- 50	94	- 10	331	369	247	316	- 109	- 46	- 260	519	947	605	231	995	(iv)
															24
705	770	637	752	802	969	1,362	1,713	1,906	1,655	1,471	1,598	2,149	2,204	2,782	(a)
648	745	502	496	861	1,342	862	1,607	1,515	1,461	1,127	1,380	1,246	1,182	802	(b)
		151	146	93	76	70	65	69	401	542	598	589	542	496	(c)
- 20	- 16	4	9	- 58	- 41	- 115	- 34	- 60	- 78	- 32	- 60	- 5	- 2	- 22	25
5,203	6,041	5,746	6,281	7,579	9,295	11,214	11,649	12,167	11,866	13,337	16,099	17,873	18,693	20,770	26

2. See footnote 2, Table 2.

TABLE 11. Business Operating Account, 1926-1950
Expenditure

1936	1937	1938	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	No.
(millions of dollars)															27
1,829	2,097	2,044	2,126	2,458	3,084	3,704	4,200	4,328	4,292	4,573	5,396	6,217	6,679	7,126	(a)
221	296	354	435	459	490	1,035	855	1,206	940	1,090	1,161	1,627	1,600	1,444	(b)
398	452	452	464	521	628	705	744	804	901	1,071	1,189	1,326	1,369	1,498	(c)
- 24	- 6	5	- 50	33	-	- 47	- 50	- 21	70	22	62	- 109	- 96	135	(d)
431	555	462	658	812	1,081	1,257	1,240	1,182	1,184	1,419	1,772	1,922	1,884	2,268	(e)
362	364	383	405	475	519	596	653	736	736	699	676	703	771	928	(f)
															28
674	714	700	716	883	1,128	1,178	1,328	1,378	1,265	1,505	1,784	1,847	1,907	2,050	(a)
- 14	- 10	- 62	17	- 53	- 74	- 93	- 211	- 267	- 262	- 236	- 180	- 75	- 77	- 64	(b)
534	572	581	610	720	858	1,002	988	957	928	903	1,118	1,276	1,437	1,614	(c)
															29
451	588	513	594	838	1,115	1,390	1,503	1,432	1,329	1,723	2,366	2,209	2,311	2,599	(a)
321	402	234	230	290	345	305	291	279	288	343	430	572	580	723	(b)
		84	85	84	79	67	73	93	116	192	264	353	347	426	(c)
20	17	- 4	- 9	59	42	115	35	60	79	33	61	5	1	23	30
5,203	6,041	5,746	6,281	7,579	9,295	11,214	11,649	12,167	11,866	13,337	16,099	17,873	18,693	20,770	31

3. For total corporation profits, see footnote 1, Table 14. See also Table 38.

TABLE 12. Non-Residents' Revenue and Expenditure Account, 1926-1950¹
Receipts from Canada
 (Canadian Imports)

No.		1926	1927	1928	1929	1930	1931	1932	1933	1934	1935
		(millions of dollars)									
32	Receipts from Business:										
	(a) Other than interest and dividends:										
	(i) U.S.A. (29a)	779	817	946	1,024	764	475	347	303	366	384
	(ii) U.K. and other Commonwealth (29b)	358	408	439	442	378	241	183	198	243	278
	(iii) Other countries (29c)										
	(b) Interest and dividends:										
	(i) U.S.A. (46a1)	92	104	120	152	174	163	149	129	133	137
	(ii) U.K. and other Commonwealth (46a11)	81	86	87	100	104	90	79	58	59	59
	(iii) Other countries (46a111)										
33	Receipts from Persons:										
	(a) Tourist and Travel Expenditure:										
	(i) U.S.A. (8c1)	70	72	72	81	67	51	30	30	36	48
	(ii) U.K. and other Commonwealth (8c11)	29	28	26	27	25	20	19	14	14	16
	(iii) Other countries (8c111)										
	(b) All other receipts (all countries) (8d)	46	47	50	49	43	25	20	19	21	21
34	Receipts from Government:										
	(a) Direct military expenditures (excluding military pay) (all countries) (19c)	—	—	—	—	—	—	—	—	—	—
	(b) Interest:										
	(i) U.S.A. (46b1)	46	47	49	50	51	58	56	59	56	53
	(ii) U.K. and other Commonwealth (46b11)	21	20	19	20	19	19	18	18	20	21
	(iii) Other countries (46b111)										
35	Net Debit (+) or Credit (-) on Current Account:										
	(a) U.S.A. (54a)	- 229	- 248	- 351	- 437	- 346	- 208	- 171	- 115	- 80	- 29
	(b) U.K. and other Commonwealth (54b)	357	237	316	124	7	33	74	113	150	155
	(c) Other countries (54c)										
36	Total	1,650	1,618	1,773	1,632	1,286	967	804	826	1,018	1,143

1. These figures differ from those shown in reports on "The Canadian Balance of International Payments", Dominion Bureau of Statistics, because adjustments have been made to the figures of receipts and payments to achieve consistency with other component series. See reconciliation, Table 42.

TABLE 13. Non-Residents' Revenue and Expenditure Account, 1926-1950¹
Payments to Canada
 (Canadian Exports)

No.		1926	1927	1928	1929	1930	1931	1932	1933	1934	1935
		(millions of dollars)									
37	Payments to Business:										
	(a) Payments other than interest and dividends:										
	(i) U.S.A. (24a)	764	795	837	860	698	526	400	395	499	577
	(ii) U.K. and other Commonwealth (24b)	854	782	890	711	529	393	367	393	462	502
	(iii) Other countries (24c)										
	(b) Interest and dividends (all countries) (43a)	10	10	10	14	15	15	14	16	29	31
38	Payments to Other Sectors:										
	Interest and dividends (all countries) (43b)	22	31	36	47	44	33	23	22	28	33
39	Total	1,650	1,618	1,773	1,632	1,286	967	804	826	1,018	1,143

1. See footnote to Table 12.

TABLE 12. Non-Residents' Revenue and Expenditure Account, 1926-1950¹

Receipts from Canada

(Canadian Imports)

1936	1937	1938	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	No.
(millions of dollars)															32
451	588	513	594	838	1,115	1,390	1,503	1,432	1,329	1,723	2,366	2,209	2,311	2,599	
321	402	234	230	290	345	305	291	279	288	343	430	572	560	723	(i)
		84	85	84	79	67	73	93	116	192	264	353	347	426	(ii)
170	160	168	169	178	160	162	148	144	129	189	222	218	275	354	(b)
68	70	63	61	60	56	44	45	49	48	49	49	47	50	50	(i)
		6	6	4	4	4	3	3	3	5	7	5	7	7	(ii)
54	65	66	67	40	18	24	34	56	81	130	152	113	164	190	33
21	22	17	13	3	3	2	2	2	2	4	12	16	21	23	(a)
25	30	3	1	—	—	—	—	—	—	1	3	4	7	9	(i)
		33	32	48	72	104	150	182	213	99	57	44	37	38	(ii)
—	—	—	—	13	58	145	603	1,261	630	74	—	—	—	—	(b)
52	51	50	51	55	54	53	57	59	63	61	52	49	50	56	(i)
21	21	20	19	16	12	7	7	7	6	6	5	4	6	5	(ii)
		—	—	—	—	—	1	2	2	2	2	2	2	2	(iii)
- 1	- 76	- 148	- 115	- 294	- 335	- 236	- 170	- 56	9	- 625	- 1,176	- 417	- 570	- 375	35
246	258	171	176	458	622	280	703	66	406	651	684	612	551	4	(a)
		76	62	15	4	10	- 6	- 18	270	306	309	223	193	62	(b)
1,428	1,591	1,356	1,451	1,808	2,467	2,361	3,444	3,561	3,597	3,210	3,638	4,054	4,011	4,173	-36

TABLE 13. Non-Residents' Revenue and Expenditure Account, 1926-1950¹

Payments to Canada

(Canadian Exports)

1936	1937	1938	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	No.
(millions of dollars)															37
705	770	637	752	802	989	1,362	1,713	1,906	1,655	1,471	1,598	2,149	2,204	2,782	
648	745	502	496	861	1,342	862	1,607	1,515	1,461	1,127	1,380	1,246	1,162	802	(i)
34	35	151	146	93	76	70	65	69	401	542	598	589	542	496	(ii)
		37	31	24	27	35	27	39	42	36	28	33	22	32	(b)
41	41	29	26	28	33	32	32	32	38	34	34	37	61	61	38
1,428	1,591	1,356	1,451	1,808	2,467	2,361	3,444	3,561	3,597	3,210	3,638	4,054	4,011	4,173	39

TABLE 14. Investment Income Appropriation Account, 1926-1950
Source

No.		1926	1927	1928	1929	1930	1931	1932	1933	1934	1935
		(millions of dollars)									
40	Corporation Profits ¹ (excluding interest and dividends from non-residents) (27e)	393	446	520	516	300	144	3	112	258	307
41	Other investment income (excluding interest on the public debt) (27f)	422	442	496	489	511	412	357	304	308	324
42	Interest on the Public Debt:										
	(a) Portion included in national income (19biii)	78	82	85	92	99	103	109	109	108	104
	(b) Transfer portion (20a)	153	152	146	143	145	150	166	174	176	176
43	Interest and Dividends from Non-Residents received by:										
	(a) Corporations (37b)	10	10	10	14	15	15	14	16	29	31
	(b) Other Sectors (38)	22	31	36	47	44	33	23	22	28	33
44	Total	1,078	1,163	1,293	1,301	1,114	857	672	737	907	975

1. To obtain total corporation profits, add items 40 and 43(a). See also Table 38.

TABLE 15. Investment Income Appropriation Account, 1926-1950
Disposition

No.		1926	1927	1928	1929	1930	1931	1932	1933	1934	1935
		(millions of dollars)									
45	To Canadian Residents:										
	(a) Interest, dividends and net rental income of persons (4)....	528	558	597	616	608	579	467	471	482	497
	(b) Charitable contributions from corporations (5b)	4	4	5	5	3	2	2	2	2	3
	(c) Corporation income and excess profits taxes (12a)	34	38	45	48	40	33	32	37	52	65
	(d) Withholding taxes (13)	—	—	—	—	—	—	—	5	6	7
	(e) Profits of government business enterprises (15b)	25	25	40	29	-6	-31	-35	-37	-20	-11
	(f) Government interest revenue (15a)	63	67	69	74	75	70	71	75	72	76
	(g) Undistributed corporation profits (49a)	179	217	263	211	—	-119	-172	-77	47	68
	(h) Inventory valuation adjustment (n.e.i.) ¹ (49e)	5	-3	-1	-4	46	-7	5	-3	-2	—
46	To Non-Residents, Interest and Dividends received from:										
	(a) Business:										
	(i) U.S.A. (32bi)	92	104	120	152	174	163	149	129	133	137
	(ii) U.K. and other Commonwealth (32bii)	81	86	87	100	104	90	79	58	59	59
	(iii) Other countries (32biii)										
	(b) Government:										
	(i) U.S.A. (34bi)	46	47	49	50	51	58	56	59	56	53
	(ii) U.K. and other Commonwealth (34bii)	21	20	19	20	19	19	18	18	20	21
	(iii) Other countries (34biii)										
47	Total	1,078	1,163	1,293	1,301	1,114	857	672	737	907	975

1. This adjustment applies only to grain in commercial channels other than the Canadian Co-operative Wheat Producers and the Canadian Wheat Board. An inventory valuation adjustment for grain held by these two agencies is included with "adjustment on grain transactions" (see item 27d, Table 11).

TABLE 14. Investment Income Appropriation Account, 1926-1950

Source

1936	1937	1938	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	No.
(millions of dollars)															
431	555	462	658	812	1,081	1,257	1,240	1,182	1,184	1,419	1,772	1,922	1,884	2,268	40
362	364	383	405	475	519	596	653	736	736	699	676	703	771	928	41
															42
101	100	100	103	102	110	111	110	104	110	99	96	94	97	106	(a)
176	173	166	172	171	181	199	261	319	402	455	463	464	475	442	(b)
															43
34	35	37	31	24	27	35	27	39	42	36	28	33	22	32	(a)
41	41	29	26	28	33	32	32	32	38	34	34	37	61	61	(b)
1,145	1,268	1,177	1,395	1,612	1,951	2,230	2,323	2,412	2,512	2,742	3,069	3,253	3,310	3,837	44

TABLE 15. Investment Income Appropriation Account, 1926-1950

Disposition

1936	1937	1938	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	No.
(millions of dollars)															
510	545	573	602	655	668	718	779	836	893	957	1,043	1,058	1,157	1,266	45
4	5	4	6	7	10	12	12	11	12	12	17	22	23	25	(a)
83	101	94	115	327	510	629	640	598	599	654	701	665	731	901	(c)
9	10	10	10	13	24	29	27	27	29	29	35	41	47	54	(d)
16	12	-3	19	62	99	146	212	222	270	243	220	200	192	238	(e)
75	75	73	71	70	77	88	99	105	119	120	113	127	165	153	(f)
139	218	108	272	163	273	355	320	341	349	411	619	788	607	726	(g)
-2	-	11	-6	2	4	-17	-27	8	-10	4	-16	7	-2	-	(h)
															46
170	160	168	169	178	160	182	148	144	129	189	222	218	275	354	(i)
68	70	63	61	60	56	44	45	49	48	49	49	47	50	50	(ii)
		8	6	4	4	4	3	3	3	5	7	5	7	7	(iii)
															(b)
52	51	50	51	55	54	53	57	59	63	61	52	49	50	56	(i)
21	21	20	19	16	12	7	7	7	6	6	5	4	6	5	(ii)
		-	-	-	-	-	1	2	2	2	2	2	2	2	(iii)
1,145	1,268	1,177	1,395	1,612	1,951	2,230	2,323	2,412	2,512	2,742	3,069	3,253	3,310	3,837	47

TABLE 16. National Saving and Investment Account, 1926-1950
Saving

No.	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935
	(millions of dollars)									
48 Personal Saving (9)	352	327	365	196	88	- 17	- 107	- 113	12	50
49 Gross Business Saving:										
(a) Undistributed corporation profits (45g)	179	217	263	211	-	- 119	- 172	- 77	47	68
(b) Depreciation allowances and similar business costs (28c)	558	600	659	709	684	618	566	547	503	520
(c) Net bad debt losses of corporations ¹ (5c)	- 15	- 16	- 16	- 18	- 12	- 17	- 22	- 28	- 17	- 15
(d) Adjustment on grain transactions (27d)	12	- 7	16	1	5	- 23	- 11	- 29	- 21	- 4
(e) Inventory valuation adjustment (n.e.i.) ² (45h)	5	- 3	- 1	- 4	46	- 7	5	- 3	- 2	-
50 Government Surplus (+) or Deficit (-) (17)	56	47	84	9	- 222	- 311	- 277	- 174	- 190	- 172
51 Residual Error of Estimate	- 61	- 4	- 56	- 13	- 14	52	34	16	57	52
52 Total	1,086	1,161	1,314	1,091	575	176	16	139	389	499

1. Since these are included in both personal saving (item 48) and depreciation allowances and similar business costs (49b), they are deducted here to avoid double counting.

TABLE 17. National Saving and Investment Account, 1926-1950
Investment

No.	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935
	(millions of dollars)									
53 Gross Domestic Investment ¹ :										
(a) New residential construction (23ci)	212	217	236	247	204	168	96	76	98	114
(b) New non-residential construction (23cii)	240	299	411	486	381	264	121	79	92	118
(c) New machinery and equipment (23ciii)	357	433	489	597	469	261	145	84	116	146
(d) Change in inventories (23civ)	88	218	157	61	- 154	- 290	- 216	- 82	70	47
54 Net Foreign Investment ² :										
(a) U.S.A. (35a)	- 229	- 248	- 351	- 437	- 346	- 206	- 171	- 115	- 80	- 29
(b) U.K. and other Commonwealth (35b)	357	237	316	124	7	33	74	113	150	155
(c) Other countries (35c)										
55 Residual Error of Estimate	61	5	56	13	14	- 52	- 33	- 16	- 57	- 52
56 Total	1,086	1,161	1,314	1,091	575	176	16	139	389	499

1. See footnote 2, Table 2; for reconciliation with "private and public investment" figures published by the Department of Trade and Commerce, see Table 41.

TABLE 16. National Saving and Investment Account, 1926-1950
Saving

1936	1937	1938	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	No.
(millions of dollars)															
25	153	160	304	409	547	1,466	1,751	1,977	1,619	988	426	1,009	1,005	820	48
															49
139	218	108	272	163	273	355	320	341	349	411	619	788	607	726	(a)
534	572	581	610	720	858	1,002	988	957	928	903	1,118	1,276	1,437	1,614	(b)
- 14	- 14	- 11	- 12	- 15	- 14	- 14	- 11	- 11	- 13	- 11	- 18	- 19	- 21	- 23	(c)
- 24	- 6	5	- 50	33	-	- 47	- 50	- 21	70	22	62	- 109	- 96	135	(d)
- 2	-	11	- 6	2	4	- 17	- 27	8	- 10	4	- 16	7	- 2	-	(e)
- 34	- 33	- 152	- 41	- 63	65	- 1,561	- 1,777	- 2,566	- 1,687	- 133	773	746	440	558	50
20	17	- 4	- 9	59	42	115	35	60	79	33	61	5	1	23	51
644	907	698	1,068	1,308	1,775	1,299	1,229	745	1,335	2,217	3,025	3,703	3,371	3,853	52

2. Portion not included in "adjustment on grain transactions" (see footnote 1, Table 15).

TABLE 17. National Saving and Investment Account, 1926-1950
Investment

1936	1937	1938	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	No.
(millions of dollars)															
															53
139	176	159	185	200	233	194	174	225	272	371	506	637	742	801	(a)
150	190	171	166	210	288	354	366	257	252	443	599	818	903	1,010	(b)
180	281	275	254	408	557	496	305	377	462	584	1,016	1,230	1,323	1,378	(c)
- 50	94	- 10	331	369	247	316	- 109	- 46	- 260	519	947	605	231	995	(d)
															54
- 1	- 76	- 146	- 115	- 294	- 335	- 236	- 170	- 56	9	- 625	- 1,176	- 417	- 570	- 375	(a)
246	258	171	176	458	822	260	703	66	408	651	884	612	551	4	(b)
		76	62	15	4	10	- 6	- 18	270	306	309	223	193	62	(c)
- 20	- 16	4	9	- 58	- 41	- 115	- 34	- 60	- 78	- 32	- 60	- 5	- 2	- 22	55
644	907	698	1,068	1,308	1,775	1,299	1,229	745	1,335	2,217	3,025	3,703	3,371	3,853	56

2. See footnote 1, Table 12; for reconciliation with "balance of payments" figures published by the Balance of Payments Section, D.B.S., see Table 42.

TABLE 18. Sector Accounts Consolidation, 1926-1950
National Income and Gross National Product

No.		1926	1927	1928	1929	1930	1931	1932	1933	1934	1935
		(millions of dollars)									
	Income Originating In:										
	Personal Sector:										
1	Wages, salaries and supplementary labour income	122	125	134	149	151	134	112	102	108	111
2	Business Sector	3,951	4,168	4,560	4,517	4,009	3,064	2,383	2,206	2,613	2,895
3	Wages, salaries and supplementary labour income	2,001	2,121	2,305	2,496	2,319	1,958	1,570	1,423	1,549	1,680
4	Net income received by farm operators from farm production	607	619	639	407	318	119	119	103	195	226
5	Adjustment on grain transactions	12	7	16	1	5	23	11	29	21	4
6	Net income of non-farm unincorporated business	516	547	584	608	556	454	345	293	324	362
7	Corporation profits (excluding interest and dividends from non-residents)	393	446	520	516	300	144	3	112	258	307
8	Other investment income (excluding interest on the public debt)	422	442	496	489	511	412	357	304	308	324
9	Government Sector	320	340	358	384	412	417	400	370	387	868
10	Wages, salaries and supplementary labour income	235	251	266	284	305	306	283	253	271	275
11	Military pay and allowances	7	7	7	8	6	8	8	8	8	9
12	Portion of interest on the public debt included in National Income	78	82	85	92	99	103	109	109	108	104
13	Non-Residents' Sector	- 208	- 216	- 229	- 261	- 289	- 282	- 265	- 226	- 211	- 206
	Interest and dividends paid by all countries:										
14	(a) To Canadian corporations	10	10	10	14	15	15	14	16	29	31
15	(b) To other Canadian sectors	22	31	36	47	44	33	23	22	28	33
	Less interest and dividends received by all countries:										
16	(a) From Canadian business	- 173	- 190	- 207	- 252	- 278	- 253	- 228	- 187	- 192	- 196
17	(b) From Canadian governments	- 67	- 67	- 68	- 70	- 70	- 77	- 74	- 77	- 76	- 74
18	Net National Income at Factor Cost	4,185	4,417	4,823	4,789	4,283	3,333	2,630	2,452	2,897	3,188
19	Depreciation allowances and similar business costs	556	600	659	709	684	618	566	547	503	520
20	Indirect taxes	614	637	684	686	600	575	546	545	585	608
21	Less subsidies	- 2	- 3	- 5	- 5	- 7	- 18	- 9	- 8	- 8	- 23
22	Residual Error of Estimate	- 61	- 4	- 56	- 13	- 14	52	34	16	57	52
23	Gross National Product at Market Prices	5,294	5,647	6,105	6,166	5,546	4,560	3,767	3,552	4,034	4,345

TABLE 19. Sector Accounts Consolidation, 1926-1950
Gross National Expenditure

No.		1926	1927	1928	1929	1930	1931	1932	1933	1934	1935
		(millions of dollars)									
1	Personal Expenditure on Consumer Goods and Services	3,687	3,919	4,194	4,393	4,204	3,646	3,108	2,887	3,077	3,243
2	Purchases from business	3,420	3,647	3,912	4,087	3,918	3,416	2,927	2,722	2,898	3,047
3	Purchases of direct services	122	125	134	149	151	134	112	102	108	111
4	Purchases from non-residents	145	147	148	157	135	96	69	63	71	85
5	Government Expenditure on Goods and Services	521	567	597	682	767	738	643	526	568	603
6	Purchases from business	201	227	239	298	355	321	243	156	181	215
7	Wages and salaries	235	251	266	284	305	306	283	253	271	275
8	Military pay and allowances	7	7	7	8	8	8	8	8	8	9
9	Interest	78	82	85	92	99	103	109	109	108	104
10	Direct military expenditure abroad	-	-	-	-	-	-	-	-	-	-
11	Gross Domestic Investment	897	1,167	1,293	1,391	900	403	146	157	376	425
12	New residential construction	212	217	236	247	204	168	96	76	98	114
13	New non-residential construction	240	299	411	466	381	264	121	79	92	118
14	New machinery and equipment	357	433	489	597	469	261	145	84	116	146
15	Change in inventories	88	218	157	61	154	290	216	82	70	47
16	Exports of Goods and Services	1,650	1,618	1,773	1,632	1,286	967	804	826	1,018	1,143
17	Payments to Canadian business	1,626	1,587	1,737	1,585	1,242	934	781	804	990	1,110
18	Payments to Other Sectors	22	31	36	47	44	33	23	22	28	33
19	Imports of Goods and Services	-1,522	-1,629	-1,808	-1,945	-1,625	-1,142	- 901	- 828	- 948	-1,017
20	Receipts from Canadian business	-1,310	-1,415	-1,592	-1,718	-1,420	- 969	- 758	- 688	- 801	- 858
21	Receipts from persons	- 145	- 147	- 148	- 157	- 135	- 96	- 69	- 63	- 71	- 85
22	Receipts from government	- 67	- 67	- 68	- 70	- 70	- 77	- 74	- 77	- 76	- 74
23	Residual Error of Estimate	61	5	56	13	14	52	33	16	57	52
24	Gross National Expenditure at Market Prices	5,294	5,647	6,105	6,166	5,546	4,560	3,767	3,552	4,034	4,345

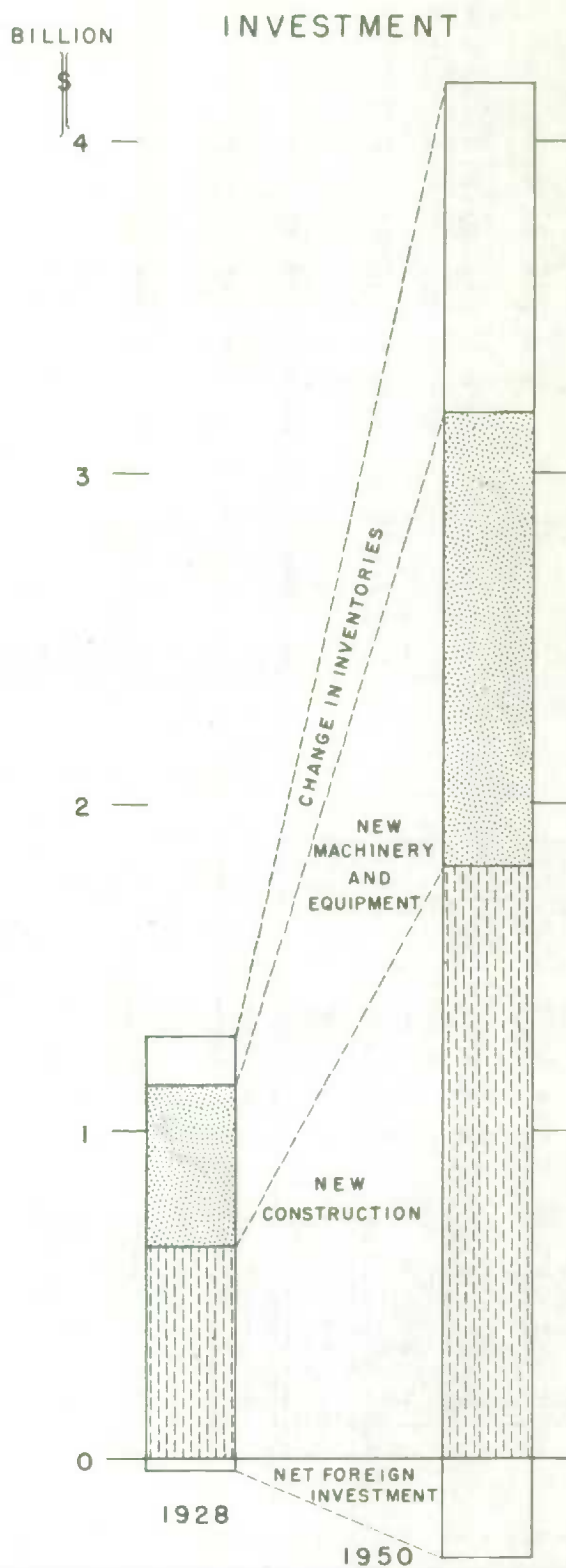
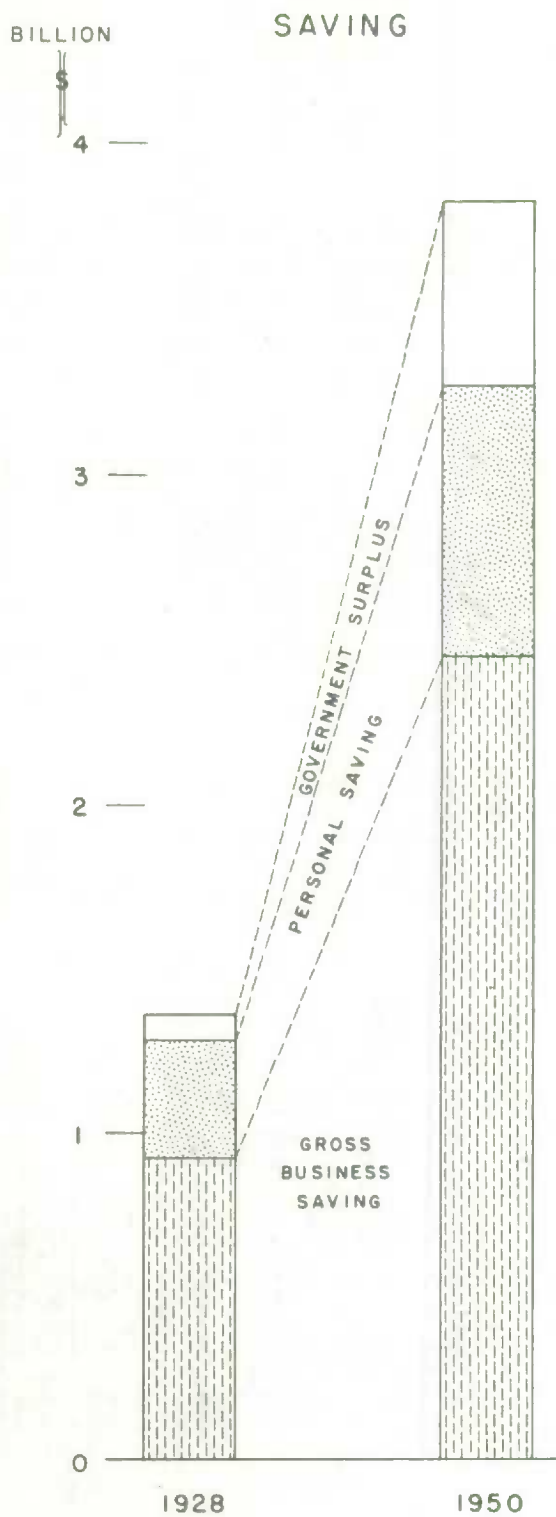
TABLE 18. Sector Accounts Consolidation, 1926-1950
National Income and Gross National Product

1936	1937	1938	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	No.
(millions of dollars)															
114	121	126	124	125	127	113	102	103	112	132	151	176	206	214	1
3,217	3,758	3,700	4,038	4,758	5,802	7,250	7,642	8,235	8,123	8,874	10,256	11,686	12,207	13,399	2
1,829	2,097	2,044	2,126	2,458	3,084	3,704	4,200	4,328	4,292	4,573	5,396	6,217	6,679	7,126	3
221	296	354	435	459	490	1,035	855	1,206	940	1,090	1,161	1,627	1,600	1,444	4
- 24	- 6	- 5	- 50	- 33	-	- 47	- 50	- 21	- 70	- 22	- 62	- 109	- 96	- 135	5
398	452	452	464	521	628	705	744	804	901	1,071	1,189	1,326	1,369	1,498	6
431	555	462	658	812	1,081	1,257	1,240	1,182	1,184	1,419	1,772	1,922	1,884	2,268	7
362	364	383	405	475	519	596	653	736	736	699	676	703	771	928	8
392	409	433	460	641	860	1,177	1,501	1,681	1,776	1,057	853	953	1,088	1,174	9
282	300	324	325	346	364	425	481	509	549	618	674	777	876	931	10
9	9	9	32	193	386	641	910	1,068	1,117	340	83	82	115	137	11
101	100	100	103	102	110	111	110	104	110	99	96	94	97	106	12
- 236	- 226	- 241	- 249	- 261	- 226	- 203	- 202	- 193	- 171	- 242	- 275	- 255	- 307	- 381	13
34	35	37	31	24	27	35	27	39	42	36	28	33	22	32	14
41	41	29	26	28	33	32	32	32	38	34	34	37	61	61	15
- 238	- 230	- 237	- 236	- 242	- 220	- 210	- 196	- 196	- 180	- 243	- 278	- 270	- 332	- 411	16
- 73	- 72	- 70	- 70	- 71	- 66	- 60	- 65	- 68	- 71	- 69	- 59	- 55	- 58	- 63	17
3,487	4,062	4,018	4,373	5,263	6,563	8,337	9,043	9,826	9,840	9,821	10,985	12,560	13,194	14,406	18
534	572	581	610	720	858	1,002	988	957	928	903	1,118	1,276	1,437	1,614	19
674	714	700	716	883	1,128	1,178	1,328	1,378	1,265	1,505	1,784	1,847	1,907	2,050	20
- 14	- 10	- 62	- 17	- 53	- 74	- 93	- 211	- 267	- 262	- 236	- 180	- 75	- 77	- 64	21
20	17	- 4	- 9	59	42	115	35	60	79	33	61	5	1	23	22
4,701	5,355	5,233	5,707	6,872	8,517	10,539	11,183	11,954	11,850	12,026	13,768	15,613	16,462	18,029	23

TABLE 19. Sector Accounts Consolidation, 1926-1950
Gross National Expenditure

1936	1937	1938	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	No.
(millions of dollars)															
3,457	3,777	3,815	3,904	4,399	5,053	5,514	5,727	6,187	6,811	7,977	9,173	10,112	10,963	11,862	1
3,243	3,539	3,570	3,687	4,183	4,833	5,271	5,439	5,844	6,403	7,611	8,798	9,759	10,528	11,388	2
114	121	126	124	125	127	113	102	103	112	132	151	176	206	214	3
100	117	119	113	91	93	130	186	240	296	234	224	177	229	260	4
600	671	720	735	1,165	1,689	3,726	4,227	5,022	3,704	1,832	1,570	1,798	2,128	2,314	5
208	262	287	275	511	771	2,404	2,123	2,080	1,298	701	717	845	1,040	1,140	6
282	300	324	325	346	364	425	481	509	549	618	674	777	876	931	7
9	9	9	32	193	386	641	910	1,068	1,117	340	83	82	115	137	8
101	100	100	103	102	110	111	110	104	110	99	96	94	97	106	9
-	-	-	-	13	58	145	603	1,261	630	74	-	-	-	-	10
419	741	595	936	1,187	1,325	1,360	736	813	726	1,917	3,068	3,290	3,199	4,184	11
139	176	159	185	200	233	194	174	225	272	371	506	637	742	801	12
150	190	171	166	210	288	354	366	257	252	443	599	818	903	1,010	13
180	281	275	254	408	557	496	305	377	462	584	1,016	1,230	1,323	1,378	14
- 50	- 94	- 10	331	369	247	316	- 109	- 46	- 260	519	947	605	231	995	15
1,428	1,591	1,356	1,451	1,808	2,467	2,361	3,444	3,561	3,597	3,210	3,638	4,054	4,011	4,173	16
1,387	1,550	1,327	1,425	1,780	2,434	2,329	3,412	3,529	3,559	3,176	3,604	4,017	3,950	4,112	17
41	41	29	26	28	33	32	32	32	38	34	34	37	61	61	18
- 1,183	- 1,409	- 1,257	- 1,328	- 1,629	- 1,976	- 2,307	- 2,917	- 3,569	- 2,910	- 2,878	- 3,621	- 3,636	- 3,837	- 4,482	19
- 1,010	- 1,220	- 1,068	- 1,145	- 1,454	- 1,759	- 1,972	- 2,063	- 2,000	- 1,913	- 2,501	- 3,338	- 3,404	- 3,550	- 4,159	20
- 100	- 117	- 119	- 113	- 91	- 93	- 130	- 186	- 240	- 296	- 234	- 224	- 177	- 229	- 260	21
- 73	- 72	- 70	- 70	- 84	- 124	- 205	- 668	- 1,329	- 701	- 143	- 59	- 55	- 58	- 63	22
- 20	- 16	4	9	- 58	- 41	- 115	- 34	- 60	- 78	- 32	- 60	- 5	- 2	- 22	23
4,701	5,355	5,233	5,707	6,872	8,517	10,539	11,183	11,954	11,850	12,026	13,768	15,613	16,462	18,029	24

CHART IV
NATIONAL SAVING AND INVESTMENT



Section 2

**INDUSTRIAL DISTRIBUTION OF NATIONAL INCOME
AND OTHER AGGREGATES**

TABLE 20. National Income, by Industry, 1926-1950¹

No.		1926	1927	1928	1929	1930	1931	1932	1933	1934	1935
		(millions of dollars)									
	Business:										
1	Agriculture.....	788	783	828	581	483	231	226	187	288	340
2	Forestry	67	69	74	79	61	37	27	31	41	46
3	Fishing and Trapping.....	29	28	28	27	19	11	7	7	12	13
4	Mining, Quarrying and Oilwells	138	146	166	189	151	116	90	116	162	194
5	Manufacturing	914	997	1,101	1,175	968	753	549	559	894	771
6	Construction	201	208	242	290	241	196	107	69	76	95
7	Transportation, Storage and Communication.....	536	561	621	611	542	462	373	347	385	404
	Public Utility Operation										
	Trade:										
8	Wholesale ²	155	163	178	190	228	146	131	114	128	148
9	Retail	352	386	422	440	419	336	254	240	284	311
10	Finance, Insurance and Real Estate	390	424	463	474	462	414	347	317	312	322
11	Service ³	503	528	571	610	586	496	384	321	339	362
12	Government ⁴	320	340	338	384	412	417	400	370	387	388
13	Non-Residents	- 208	- 216	- 229	- 261	- 289	- 282	- 265	- 226	- 211	- 206
14	Total	4,185	4,417	4,823	4,789	4,283	3,333	2,630	2,452	2,897	3,188

1. For difference between this classification and the Standard Industrial Classification, see notes on page 120.

2. This series includes the inventory valuation adjustment for grain held in commercial channels other than the Canadian Co-operative Wheat Producers and the Canadian Wheat Board. This affects the movement of the figures from 1929 to 1930; the adjustment for other years is relatively small. See Table 15.

TABLE 21. Wages, Salaries and Supplementary Labour Income, by Industry, 1926-1950

No.		1926	1927	1928	1929	1930	1931	1932	1933	1934	1935
		(millions of dollars)									
	Business:										
1	Agriculture.....	111	111	112	112	99	77	60	58	61	66
2	Forestry	59	61	64	69	53	30	22	25	34	39
3	Fishing and Trapping.....	7	6	6	7	6	4	3	3	4	4
4	Mining, Quarrying and Oilwells	80	87	99	105	96	76	63	62	78	89
5	Manufacturing	645	685	747	607	727	611	492	453	524	583
6	Construction	154	157	186	231	189	153	82	50	52	67
7	Transportation, Storage and Communication.....	..	..	..	..	445	394	331	299	305	318
	Public Utility Operation										
	Trade:										
8	Wholesale.....	..	..	..	..	144	129	112	103	106	115
9	Retail .....	..	..	..	..	250	211	174	160	177	187
10	Finance, Insurance and Real Estate	104	112	128	142	139	126	113	109	105	106
11	Service ¹	263	272	294	322	322	281	230	203	211	217
12	Government ²	242	258	273	292	313	314	291	261	279	284
13	Total	2,365	2,504	2,712	2,937	2,783	2,406	1,973	1,786	1,936	2,075

1. Includes income originating in the personal sector. See Table 18.

2. Includes military pay and allowances; see also footnote 4, Table 20.

TABLE 20. National Income, by Industry, 1926-1950¹

1936	1937	1938	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	No.
(millions of dollars)															
320	417	487	512	628	631	1,134	957	1,337	1,161	1,276	1,404	1,705	1,693	1,792	1
57	81	53	71	90	101	115	131	136	162	220	237	264	210	235	2
15	18	13	12	17	33	41	48	55	61	78	43	68	66	75	3
240	295	268	299	325	349	342	316	278	274	302	361	440	448	513	4
894	1,089	1,021	1,164	1,454	1,983	2,546	2,864	2,892	2,707	2,782	3,376	3,834	3,942	4,378	5
113	147	145	148	178	254	297	329	283	340	430	572	684	776	835	6
450	477	466	508	601	733	877	999	1,044	1,081	1,105	1,188	1,286	1,338	1,407	7
157	185	187	193	237	298	307	307	364	370	454	550	645	675	744	8
341	389	375	397	459	555	614	644	712	799	957	1,104	1,215	1,310	1,471	9
366	364	383	426	429	459	529	551	611	603	630	697	743	853	987	10
378	417	428	432	465	533	561	598	626	677	772	875	978	1,102	1,176	11
392	409	433	460	641	860	1,177	1,501	1,681	1,776	1,057	853	953	1,088	1,174	12
- 236	- 226	- 241	- 249	- 261	- 226	- 203	- 202	- 193	- 171	- 242	- 275	- 255	- 307	- 381	13
3,487	4,062	4,018	4,373	5,263	6,563	8,337	9,043	9,826	9,840	9,821	10,985	12,560	13,194	14,406	14

3. Includes income originating in the personal sector. See Table 18.

4. Includes government non-business transactions only. Income originating in government business enterprises is included under the appropriate industrial groups, within the business sector.

TABLE 21. Wages, Salaries and Supplementary Labour Income, by Industry, 1926-1950

1936	1937	1938	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	No.
(millions of dollars)															
70	75	76	77	88	94	101	109	113	115	125	139	142	143	157	1
50	72	45	62	80	90	103	118	122	147	201	202	218	188	198	2
4	4	4	4	4	5	6	7	8	9	10	8	11	13	14	3
104	129	128	136	145	161	165	163	164	154	168	191	232	256	283	4
638	754	736	769	957	1,318	1,756	2,068	2,117	1,936	1,833	2,195	2,536	2,669	2,862	5
80	106	105	102	129	191	225	262	213	232	303	411	498	571	612	6
335	356	359	369	389	445	505	587	640	666	738	831	969	1,039	1,062	7
124	137	131	141	156	184	198	207	224	242	274	328	377	423	455	8
202	228	222	225	256	300	319	329	355	387	445	536	615	692	751	9
112	116	117	118	120	132	142	149	158	170	205	239	269	291	313	10
224	241	247	247	259	291	297	303	317	346	403	467	526	600	633	11
291	309	333	357	539	750	1,066	1,391	1,577	1,666	958	757	859	991	1,068	12
2,234	2,327	2,503	2,607	3,122	3,961	4,883	5,693	6,008	6,070	5,663	6,304	7,252	7,876	8,408	13

.. Detail not given pending further research.

TABLE 22. Corporation Profits before Taxes, by Industry, 1926-1950

No.		1926	1927	1928	1929	1930	1931	1932	1933	1934	1935
		(millions of dollars)									
	Business:										
	Agriculture										
1	Forestry	1	1	2	2	1	1	—	1	1	1
	Fishing and Trapping										
2	Mining, Quarrying and Oilwells	53	54	62	80	52	35	22	49	79	101
3	Manufacturing	192	226	250	259	143	63	- 6	57	128	143
4	Construction	3	3	4	4	4	1	- 2	- 2	—	—
5	Transportation, Storage and Communication										
	Public Utility Operation	59	55	81	61	32	19	2	4	21	21
	Trade:										
6	Wholesale	12	19	20	21	9	- 2	- 10	- 8	2	11
7	Retail	35	38	41	31	14	- 1	- 18	- 2	11	16
8	Finance, Insurance and Real Estate	43	53	58	61	50	40	32	33	45	45
9	Service	5	7	12	11	10	3	- 3	- 4	—	—
10	Total Corporation Profits Before Taxes	403	456	530	530	315	159	17	128	287	338
11	Non-Residents¹	- 95	- 106	- 115	- 158	- 177	- 150	- 130	- 98	- 104	- 120
12	Total	308	350	415	372	138	9	- 113	30	183	218

1. Dividends paid to non-residents. See Table 38.

TABLE 23. Investment Income Excluding Corporation Profits, by Industry, 1926-1950¹

No.		1926	1927	1928	1929	1930	1931	1932	1933	1934	1935
		(millions of dollars)									
	Business:										
	Agriculture										
1	Forestry	58	60	61	60	59	58	58	55	53	50
	Fishing and Trapping										
2	Mining, Quarrying and Oilwells										
	Manufacturing	21	27	40	42	36	28	21	9	- 3	- 3
3	Construction	3	4	4	4	3	2	2	1	1	1
4	Transportation, Storage and Communication										
	Public Utility Operation .....	..	..	..	..	49	35	26	30	44	49
	Trade:										
5	Wholesale ² .....	..	..	..	..	58	4	18	6	7	7
6	Retail .....	..	..	..	..	32	27	20	16	17	20
7	Finance, Insurance and Real Estate	227	240	250	240	249	232	188	159	148	158
8	Service	8	8	10	11	10	11	12	12	12	11
9	Government³	78	82	85	92	99	103	109	109	108	104
10	Non-Residents⁴	- 113	- 110	- 114	- 103	- 112	- 132	- 135	- 128	- 107	- 86
11	Total	377	404	457	464	483	368	317	269	280	311

1. This is a heterogeneous aggregate including items such as interest, net rents, and trading profits of government business enterprises.

2. This series includes the inventory valuation adjustment for grain held in commercial channels other than the Canadian Co-operative Wheat Producers and the Canadian Wheat Board; see also footnote 2, Table 20.

TABLE 22. Corporation Profits before Taxes, by Industry, 1926-1950

1936	1937	1938	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	No.
(millions of dollars)															
2	3	2	3	3	4	4	4	4	4	7	15	16	10	..	1
131	160	134	157	175	183	173	149	111	116	130	165	203	187	..	2
210	280	226	330	420	576	681	650	635	624	768	991	1,084	1,060	..	3
—	2	2	3	3	8	9	9	10	9	14	22	36	42	..	4
28	36	33	46	76	124	167	182	157	143	130	148	128	114	..	5
14	25	20	30	46	72	85	85	88	92	124	155	168	157	..	6
21	27	20	32	42	61	80	92	116	135	164	170	172	171	..	7
57	50	56	81	63	67	76	72	76	78	85	102	113	127	..	8
2	7	6	7	8	13	17	24	24	27	33	32	35	38	..	9
465	590	499	689	836	1,108	1,292	1,267	1,221	1,226	1,455	1,800	1,955	1,906	2,300	10
- 161	- 166	- 175	- 177	- 182	- 168	- 170	- 156	- 153	- 138	- 205	- 248	- 249	- 317	- 404	11
304	424	324	512	654	940	1,122	1,111	1,068	1,088	1,250	1,552	1,706	1,589	1,896	12

.. Detail not given pending further research.

TABLE 23. Investment Income Excluding Corporation Profits, by Industry, 1926-1950¹

1936	1937	1938	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	No.
(millions of dollars)															
51	50	50	48	45	43	40	38	33	33	34	38	40	41	..	1
- 6	- 4	- 1	4	8	6	6	35	15	8	9	9	19	28	..	2
1	1	2	2	2	2	2	2	1	2	2	3	4	4	..	3
87	83	52	68	109	131	163	190	207	228	182	151	131	131	..	4
3	5	17	2	13	16	- 5	- 18	18	- 2	11	2	22	14	..	5
23	26	26	30	34	42	54	58	60	85	105	107	111	116	..	6
179	179	192	211	231	243	292	310	354	329	309	326	328	400	..	7
10	9	8	9	9	9	9	9	9	11	11	12	15	15	..	8
101	100	100	103	102	110	111	110	104	110	99	96	94	97	106	9
- 75	- 60	- 66	- 72	- 79	- 58	- 33	- 46	- 40	- 33	- 37	- 27	- 6	10	23	10
354	369	380	405	474	544	639	690	761	771	725	717	758	856	1,025	11

3. See also footnote 4, Table 20.

4. Includes interest paid to non-residents reduced by interest and dividends received from non-residents.

.. Detail not shown pending further research.

TABLE 24. Net Income of Unincorporated Business, by Industry, 1926-1950

No.		1926	1927	1928	1929	1930	1931	1932	1933	1934	1935
		(millions of dollars)									
	Business:										
1	Agriculture	619	612	655	408	323	96	108	74	174	222
2	Forestry	7	7	8	8	7	6	5	5	8	6
3	Fishing and Trapping	22	22	22	20	13	7	4	4	8	9
4	Mining, Quarrying and Oilwells	5	5	5	5	5	5	5	5	5	6
5	Manufacturing	56	59	64	67	62	51	42	40	45	48
6	Construction	41	44	48	51	45	40	25	20	23	27
7	Transportation, Storage and Communication	9	11	13	15	16	14	14	14	15	16
	Public Utility Operation										
	Trade:										
8	Wholesale	15	17	18	19	17	15	13	13	13	15
9	Retail	118	122	124	126	123	99	78	66	79	88
10	Finance, Insurance and Real Estate	16	19	27	31	24	16	14	16	14	13
11	Service	227	241	255	266	244	201	145	110	116	134
12	Total	1,135	1,159	1,239	1,016	879	550	453	367	498	584

TABLE 25. Gross Domestic Investment (Excluding Inventories), by Industry, 1926-1950¹

No.		1926	1927	1928	1929	1930	1931	1932	1933	1934	1935
		(millions of dollars)									
1	Agriculture	97	117	145	130	92	39	33	24	42	46
	Fishing and Trapping										
2	Forestry	6	6	6	7	6	4	2	2	3	3
3	Mining, Quarrying and Oil Wells	17	18	32	46	45	22	7	9	11	31
4	Manufacturing ²	222	281	325	374	277	157	83	42	50	67
5	Construction	14	15	25	33	28	11	4	2	2	7
6	Transportation, Storage and Communication ³	174	204	246	344	295	221	95	55	62	73
	Public Utility Operation										
7	Trade	24	27	50	68	43	25	16	10	18	15
8	Finance, Insurance and Real Estate ⁴	220	231	250	267	218	179	104	81	102	119
9	Service ⁵	35	50	57	61	50	35	18	14	16	17
10	Total	809	949	1,136	1,330	1,054	693	362	239	306	378

1. This Table is derived from "Private and Public Investment in Canada 1926-1951" (Department of Trade and Commerce); adjustments have been made to bring the data into line with National Accounting concepts. See reconciliation statement, Table 41.

2. Includes outlay for wartime plant expansion in Canada by United Kingdom Government, 1940-1943.

3. Includes United States Government defence construction in Canada (Alaska Highway and Northern Staging Routes) 1942-1944.

Excludes United States Government expenditures in connection with the wartime "Canol Project", which did not draw upon Canadian production.

Excludes Canadian Government investment in merchant shipping, which is included with "Government Expenditure on Goods and Services".

TABLE 24. Net Income of Unincorporated Business, by Industry, 1926-1950

1936	1937	1938	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	No.
(millions of dollars)															
197	290	359	385	492	490	988	805	1,185	1,010	1,112	1,223	1,518	1,504	1,579	1
6	7	7	7	8	9	10	11	12	12	15	23	34	18	30	2
11	14	9	8	13	28	35	41	47	51	67	34	56	52	60	3
6	7	7	7	7	7	7	7	7	7	7	7	7	7	7	4
52	59	60	61	69	83	103	111	125	139	172	181	195	185	204	5
32	38	36	41	44	53	61	56	59	97	111	136	146	159	167	6
20	22	22	25	27	33	42	40	40	44	55	58	58	54	50	7
16	18	19	20	22	26	29	31	34	38	45	65	78	81	85	8
95	108	107	110	127	152	161	165	181	192	243	291	317	331	375	9
18	19	18	16	15	17	19	20	23	28	31	30	33	35	41	10
142	160	167	169	189	220	238	262	276	293	325	364	402	449	479	11
595	742	811	849	1,013	1,118	1,693	1,549	1,989	1,911	2,183	2,412	2,844	2,873	3,077	12

TABLE 25. Gross Domestic Investment (Excluding Inventories), by Industry, 1926-1950¹

1936	1937	1938	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	No.
(millions of dollars)															
59	79	82	79	100	110	94	64	105	129	182	274	351	419	442	1
4	5	5	5	6	7	7	8	14	12	14	33	28	26	30	2
31	33	34	31	29	32	22	16	17	16	39	71	105	122	134	3
83	140	115	98	274	430	445	277	211	280	337	528	579	536	519	4
7	12	9	11	12	17	25	23	19	31	33	52	59	55	62	5
93	141	135	120	131	159	189	246	197	137	251	410	566	678	744	6
19	28	34	30	35	32	34	14	38	42	83	119	162	193	211	7
144	182	165	193	207	239	200	177	230	282	386	527	670	774	847	8
29	27	26	38	24	52	28	22	28	57	73	107	165	165	200	9
469	647	605	605	818	1,078	1,044	845	859	986	1,398	2,121	2,685	2,968	3,189	10

4. Includes all new residential construction, (exclusive of government other than government business enterprises). See Table 2, Line 3.

5. Excludes government departmental expenditures, federal and provincial hospital, and municipal school expenditures, which are included with "Government Expenditure on Goods and Services". Investment expenditure of government business enterprises (railways, power commissions, etc.) are included under appropriate industry headings.

TABLE 26. Investment in Inventories, by Industry, 1926-1935¹

No.		1926	1927	1928	1929	1930	1931	1932	1933	1934	1935
(millions of dollars)											
1	Agriculture ²	- 1	60	- 22	- 129	46	- 30	14	- 33	- 8	- 1
2	Forestry	- 1	5	—	4	- 12	- 7	- 3	6	7	1
3	Fishing and Trapping	—	—	—	—	—	—	—	—	—	—
4	Mining, Quarrying and Oil Wells	—	2	1	4	- 2	1	- 4	3	2	—
5	Manufacturing	27	48	72	42	- 30	- 129	- 112	- 24	24	13
6	Construction	8	2	4	11	- 14	- 13	- 16	1	4	2
7	Transportation, Storage and Communication	- 6	3	1	9	- 6	- 9	- 5	- 13	- 4	4
8	Public Utility Operation	- 1	4	- 8	—	—	—	—	- 1	—	—
Trade:											
9	Grain in Commercial Channels ²	- 21	27	57	34	- 48	- 22	7	10	20	1
10	Wholesale (excluding grain in commercial channels)	35	19	- 13	13	- 26	- 52	- 33	- 20	20	13
11	Retail	47	47	63	71	- 62	- 27	- 62	- 10	4	13
12	Finance, Insurance and Real Estate	1	1	2	2	—	- 2	- 2	- 1	1	1
	Service										
13	Total	88	218	157	61	- 154	- 290	- 216	- 82	70	47

1. Excludes government inventories, other than government business enterprises.

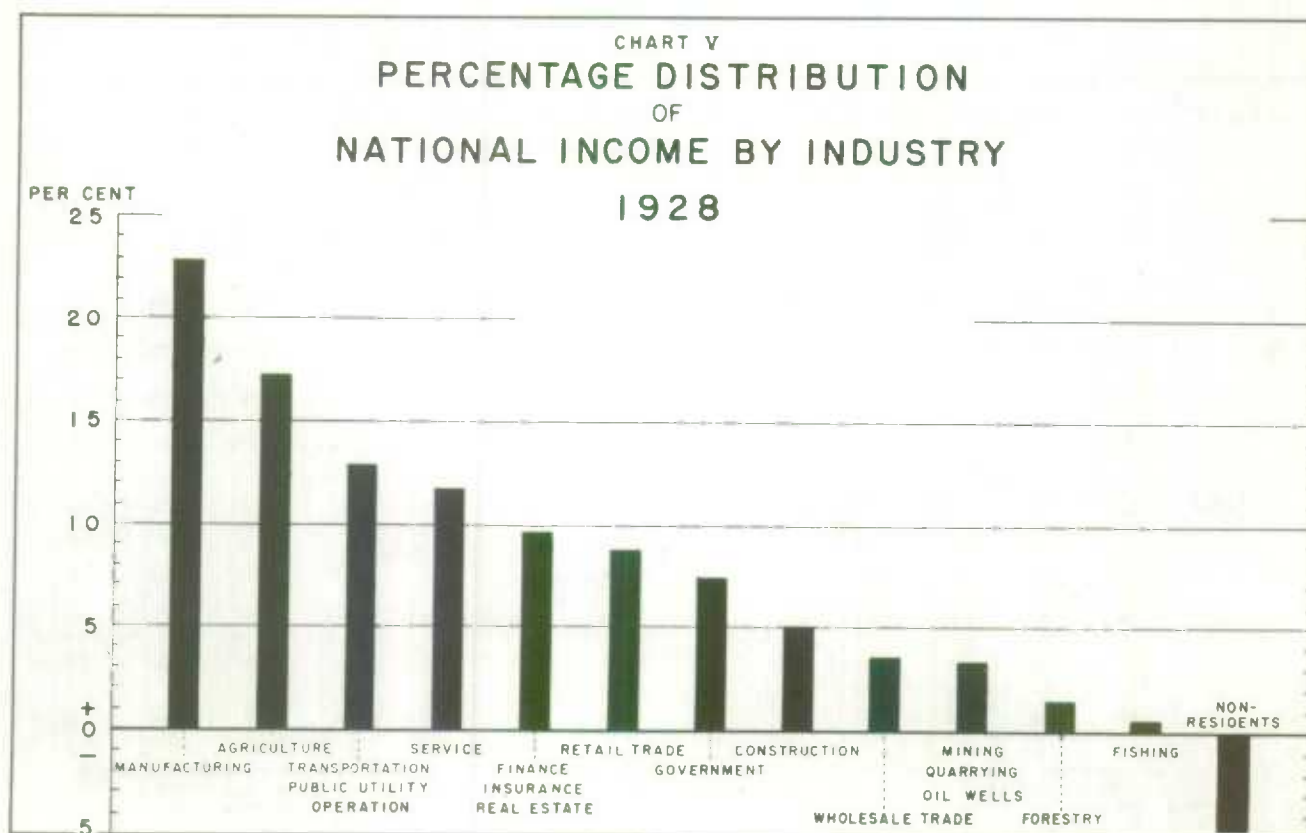


TABLE 26. Investment in Inventories, by Industry, 1926-1950¹

1936	1937	1938	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	No.
(millions of dollars)															
- 56	- 11	28	60	75	- 48	354	- 125	- 103	- 231	- 57	- 79	- 65	- 72	131	1
8	17	- 25	9	12	1	2	4	13	32	58	- 4	4	- 34	26	2
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3
9	1	2	3	3	10	3	- 4	- 1	- 2	14	10	2	4	2	4
41	107	- 18	46	140	166	- 26	153	43	123	244	515	267	104	404	5
- 1	8	- 3	1	7	12	- 11	- 4	- 12	6	5	19	18	33	15	6
- 1	5	- 3	3	5	19	10	7	10	- 11	10	22	36	- 15	9	7
-	1	1	1	1	2	-	- 2	1	3	7	16	22	16	- 1	8
- 97	- 93	43	127	90	11	10	- 90	- 7	- 220	- 41	23	51	- 16	55	9
26	26	- 25	45	15	40	- 3	- 13	9	10	125	178	140	58	166	10
20	31	- 9	35	20	31	- 25	- 36	-	28	146	232	130	146	178	11
1	2	- 1	1	1	3	2	1	1	2	8	15	-	7	10	12
- 50	94	- 10	331	369	247	316	- 109	- 46	- 260	519	947	605	231	995	13

2. Data shown represent "value of physical change". For other industries, data shown are "change in book value".

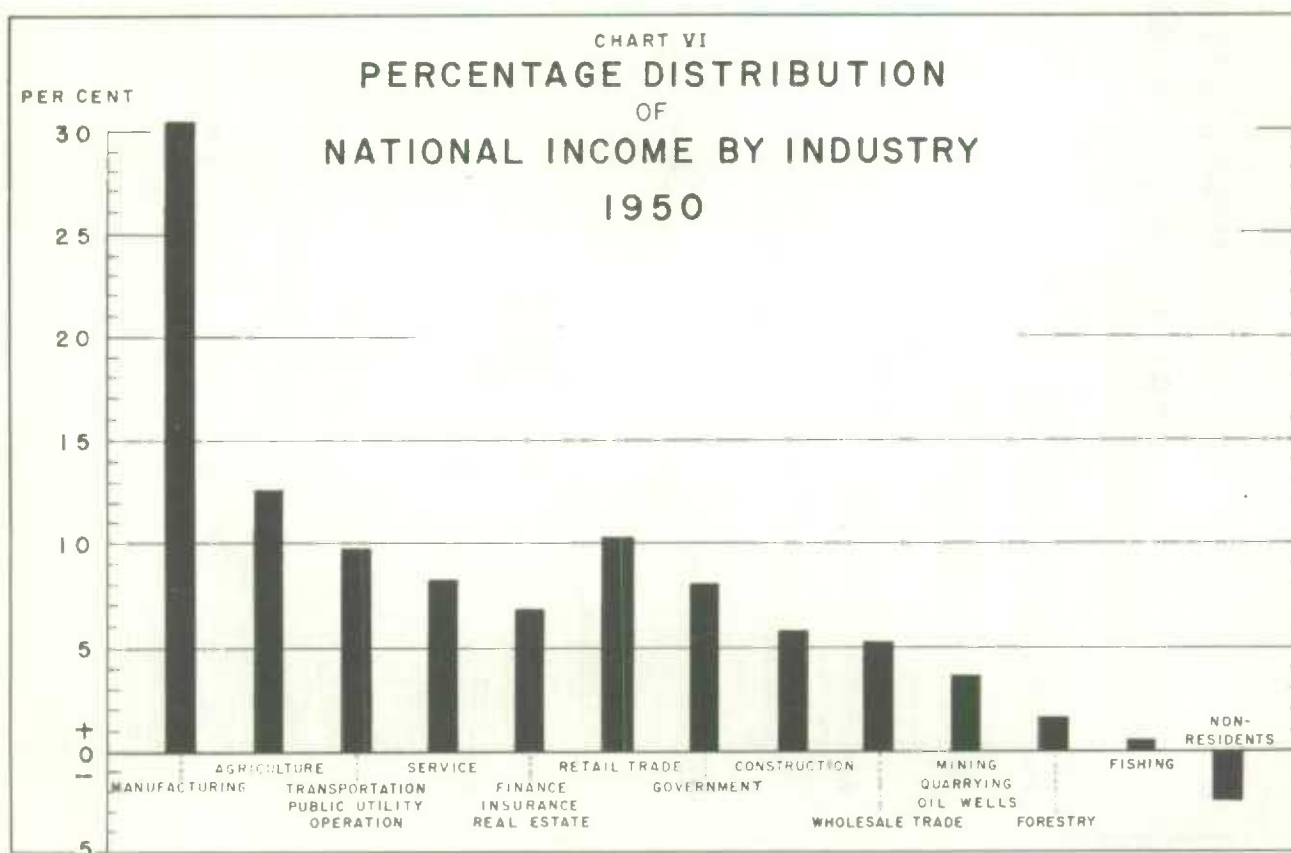
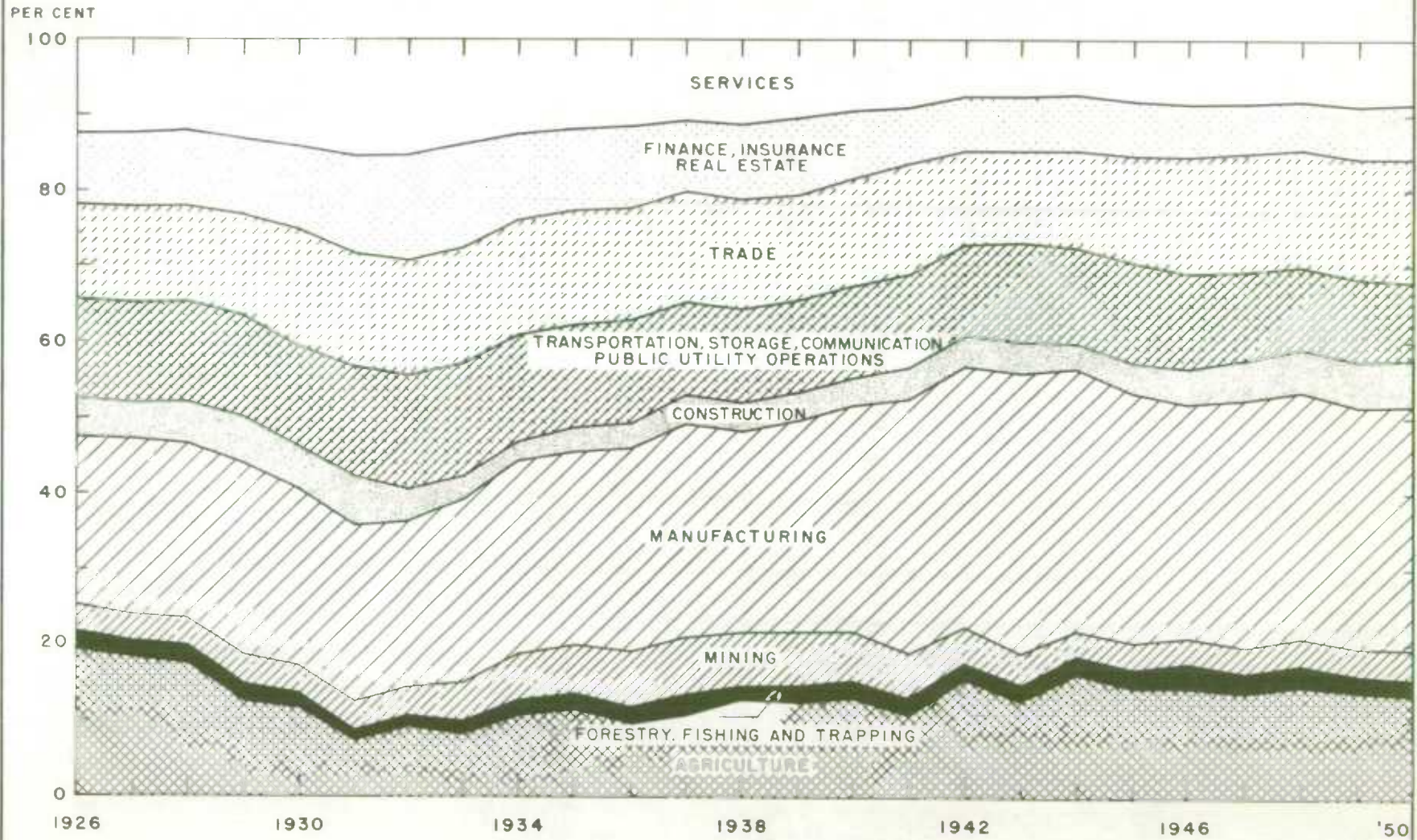


CHART VII
 PERCENTAGE DISTRIBUTION OF INCOME
 ORIGINATING IN THE BUSINESS SECTOR BY INDUSTRY
 1926 — 1950



Section 3

GEOGRAPHICAL DISTRIBUTION OF PERSONAL INCOME

TABLE 27. Personal Income, Geographical Distribution, 1926-1950¹

No.		1926	1927	1928	1929	1930	1931	1932	1933	1934	1935
		(millions of dollars)									
1	Newfoundland ²	—	—	—	—	—	—	—	—	—	—
2	Prince Edward Island	19	22	21	23	20	16	12	12	13	14
3	Nova Scotia	149	150	167	170	161	139	113	109	120	131
4	New Brunswick	109	109	115	120	114	96	79	74	80	86
5	Quebec	961	1,013	1,101	1,174	1,117	973	799	739	816	860
6	Ontario	1,569	1,660	1,781	1,893	1,798	1,561	1,263	1,187	1,315	1,409
7	Manitoba	299	273	322	306	287	224	194	174	193	198
8	Saskatchewan	359	375	400	271	226	144	145	117	144	178
9	Alberta	293	350	328	290	259	201	169	146	183	186
10	British Columbia ³	319	337	367	392	369	321	269	257	272	296
11	Foreign Countries ⁴	—	—	—	—	—	—	—	—	—	—
12	Personal Bad Debts (not distributed by Province)	15	16	18	18	12	17	22	28	17	15
13	Canada	4,092	4,305	4,618	4,657	4,363	3,692	3,065	2,843	3,153	3,373

1. Geographical distributions of the main components only of personal income are given in Tables 28 to 31 inclusive; these tables, therefore, do not add to the total of personal income.

2. These estimates must be regarded as provisional, since the statistical coverage of Newfoundland is not yet as complete as for other provinces.

TABLE 28. Wages, Salaries, and Supplementary Labour Income, Geographical Distribution, 1926-1950¹

No.		1926	1927	1928	1929	1930	1931	1932	1933	1934	1935
		(millions of dollars)									
1	Newfoundland ²	—	—	—	—	—	—	—	—	—	—
2	Prince Edward Island	8	8	9	10	9	8	6	6	6	7
3	Nova Scotia	99	102	108	114	105	90	74	67	73	80
4	New Brunswick	69	71	76	80	75	64	52	47	51	54
5	Quebec	596	638	696	760	724	629	517	469	509	547
6	Ontario	959	1,017	1,103	1,197	1,137	985	810	735	800	860
7	Manitoba	166	174	187	200	188	159	128	113	120	125
8	Saskatchewan	118	124	133	142	133	113	91	81	86	89
9	Alberta	135	142	153	164	154	132	107	96	103	109
10	British Columbia ³	208	221	240	262	250	218	180	164	180	195
11	Foreign Countries	—	—	—	—	—	—	—	—	—	—
12	Canada	2,358	2,497	2,705	2,929	2,775	2,398	1,965	1,778	1,928	2,066

1. Excludes military pay and allowances.

2. These estimates must be regarded as provisional, since the statistical coverage of Newfoundland is not yet as complete as for other provinces.

TABLE 27. Personal Income, Geographical Distribution, 1926-1950¹

1936	1937	1938	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	No.
(millions of dollars)															
—	—	—	—	—	—	—	—	—	—	—	—	—	163	175	1
18	19	18	20	20	22	29	34	36	43	45	43	51	51	57	2
141	160	160	163	188	225	280	331	355	376	408	412	432	449	485	3
94	107	104	111	126	148	179	208	221	248	275	289	315	315	343	4
933	1,034	1,038	1,083	1,222	1,475	1,766	2,015	2,114	2,200	2,388	2,608	2,930	3,106	3,267	5
1,490	1,678	1,689	1,766	2,059	2,522	3,002	3,367	3,566	3,729	3,821	4,068	4,608	4,953	5,327	6
213	272	239	249	285	341	426	457	505	518	579	616	727	736	754	7
168	149	197	274	279	277	553	438	680	541	602	643	814	832	746	8
188	252	268	262	310	324	512	447	589	564	666	709	870	896	907	9
318	357	366	379	426	509	639	753	774	823	905	978	1,168	1,227	1,325	10
—	—	—	1	17	39	75	115	151	184	61	6	9	8	8	11
14	14	11	12	15	14	14	11	11	13	11	18	19	21	23	12
3,577	4,042	4,090	4,320	4,947	5,896	7,475	8,176	9,002	9,239	9,761	10,390	11,943	12,757	13,417	13

3. Includes Yukon and North West Territories. In 1950, personal income of the Yukon and North West Territories was approximately \$15 million.
 4. Includes receipts of income of Canadians temporarily abroad, including pay and allowances of Canadian armed forces abroad.

TABLE 28. Wages, Salaries, and Supplementary Labour Income, Geographical Distribution, 1926-1950¹

1936	1937	1938	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	No.
(millions of dollars)															
—	—	—	—	—	—	—	—	—	—	—	—	—	102	109	1
7	8	8	9	9	9	10	12	13	14	16	17	21	21	24	2
87	100	101	106	120	145	180	208	223	218	223	255	271	281	301	3
59	67	67	69	77	88	103	117	125	132	148	174	189	190	208	4
589	667	661	676	770	972	1,186	1,362	1,395	1,384	1,450	1,726	1,918	2,050	2,143	5
929	1,056	1,052	1,092	1,259	1,554	1,816	2,016	2,057	2,047	2,189	2,584	3,010	3,246	3,498	6
131	144	136	142	156	185	204	216	240	252	283	321	363	397	421	7
94	102	97	100	111	123	131	143	161	173	198	213	255	262	276	8
117	130	127	132	145	169	184	206	230	240	281	310	366	406	430	9
212	244	245	249	281	329	427	502	495	491	533	618	773	802	857	10
—	—	—	—	1	1	1	1	1	2	2	3	4	4	4	11
2,225	2,518	2,494	2,575	2,929	3,575	4,242	4,783	4,940	4,953	5,323	6,221	7,170	7,761	8,271	12

3. Includes Yukon and North West Territories.

TABLE 29. Interest, Dividends, and Net Rental Income of Persons, Geographical Distribution, 1926-1950

No.		1926	1927	1928	1929	1930	1931	1932	1933	1934	1935
		(millions of dollars)									
1	Newfoundland ¹	—	—	—	—	—	—	—	—	—	—
2	Prince Edward Island	3	3	4	4	4	3	2	3	3	3
3	Nova Scotia	15	15	16	17	18	18	15	16	16	16
4	New Brunswick	11	11	12	13	12	12	10	11	11	12
5	Quebec	137	147	157	166	168	161	131	134	134	137
6	Ontario	231	243	262	278	279	270	214	218	228	236
7	Manitoba	38	37	41	40	38	34	27	28	27	28
8	Saskatchewan	35	38	40	32	25	19	18	14	15	16
9	Alberta	27	32	31	29	26	25	20	18	19	18
10	British Columbia ²	31	32	34	37	38	37	30	29	29	31
11	Foreign Countries	—	—	—	—	—	—	—	—	—	—
12	Canada	528	558	597	616	608	579	467	471	482	497

1. These estimates must be regarded as provisional, since the statistical coverage of Newfoundland is not yet as complete as for other provinces.

TABLE 30. Net Income Received by Farm Operators From Farm Production and Net Income of Non-Farm Unincorporated Business, Geographical Distribution, 1926-1950¹

No.		1926	1927	1928	1929	1930	1931	1932	1933	1934	1935
		(millions of dollars)									
1	Newfoundland ²	—	—	—	—	—	—	—	—	—	—
2	Prince Edward Island	8	10	8	9	7	4	3	3	3	4
3	Nova Scotia	32	30	39	35	34	27	20	21	24	28
4	New Brunswick	28	25	26	25	24	18	14	13	15	17
5	Quebec	218	219	235	236	211	166	125	107	127	137
6	Ontario	351	372	388	389	345	260	188	165	211	230
7	Manitoba	89	56	86	58	52	19	26	18	31	30
8	Saskatchewan	200	208	220	89	60	- 10	15	2	13	43
9	Alberta	126	171	139	91	71	36	33	22	52	49
10	British Columbia ³	71	75	82	83	70	53	40	45	43	50
11	Foreign Countries	—	—	—	—	—	—	—	—	—	—
12	Canada	1,123	1,166	1,223	1,015	874	573	464	396	519	588

1. This item differs from the total of lines 4 and 5, Table 1, in that it includes adjustment and equalization payments to farmers by the Canadian Wheat Board, but excludes undistributed earnings (and the inventory valuation adjustment) of the Canadian Co-operative Wheat Producers and the Canadian Wheat Board.

TABLE 29. Interest, Dividends, and Net Rental Income of Persons, Geographical Distribution, 1926-1950

1936	1937	1938	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	No.
(millions of dollars)															
—	—	—	—	—	—	—	—	—	—	—	—	—	11	13	1
3	4	4	4	4	4	4	4	4	4	4	4	4	4	5	2
17	18	19	20	21	23	23	26	28	32	34	36	33	40	43	3
12	12	13	14	15	16	16	18	19	21	22	23	27	27	29	4
139	147	153	158	171	174	180	196	206	223	232	243	255	267	293	5
241	265	274	284	312	316	319	346	360	393	412	448	442	492	540	6
28	31	30	32	36	37	38	43	46	47	52	57	58	61	64	7
19	11	16	24	23	22	45	44	59	47	53	61	60	60	66	8
19	22	25	26	29	29	40	42	46	47	55	61	64	68	75	9
32	35	39	40	44	47	53	60	68	79	93	110	115	127	138	10
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	11
510	545	573	602	655	668	718	779	836	893	957	1,043	1,058	1,157	1,266	12

2. Includes Yukon and North West Territories.

TABLE 30. Net Income Received by Farm Operators From Farm Production and Net Income of Non-Farm Unincorporated Business, Geographical Distribution, 1926-1950¹

1936	1937	1938	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	No.
(millions of dollars)															
—	—	—	—	—	—	—	—	—	—	—	—	—	33	33	1
7	7	6	7	6	7	12	14	13	16	16	15	20	19	20	2
30	35	33	28	30	34	43	54	56	61	74	69	81	78	88	3
20	23	19	22	24	30	39	48	48	50	57	61	70	67	71	4
158	177	181	193	218	263	320	353	385	385	465	470	575	581	604	5
243	290	292	306	329	403	519	515	578	635	732	789	932	966	1,017	6
38	82	59	60	70	90	144	147	160	133	161	189	262	232	219	7
30	-13	49	125	114	94	316	200	393	230	253	304	429	441	339	8
39	87	104	92	117	102	243	150	252	190	243	282	386	362	335	9
54	60	63	66	72	95	104	118	125	141	160	171	198	190	218	10
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	11
619	748	806	899	980	1,118	1,740	1,599	2,010	1,841	2,161	2,350	2,953	2,969	2,942	12

2. These estimates must be regarded as provisional, since the statistical coverage of Newfoundland is not yet as complete as for other provinces.

3. Includes Yukon and North West Territories.

TABLE 31. Government Transfer Payments, Excluding Interest, Geographical Distribution, 1926-1950

No.		1926	1927	1928	1929	1930	1931	1932	1933	1934	1935
		(millions of dollars)									
1	Newfoundland ¹	—	—	—	—	—	—	—	—	—	—
2	Prince Edward Island	—	—	—	—	—	—	—	—	1	1
3	Nova Scotia	4	4	4	4	4	5	5	6	7	8
4	New Brunswick	2	2	2	2	3	3	3	3	3	3
5	Quebec	9	9	12	14	16	20	29	32	47	41
6	Ontario	30	31	33	35	45	50	55	72	82	88
7	Manitoba	6	7	8	9	10	13	14	15	15	15
8	Saskatchewan	5	5	6	7	9	22	21	20	31	29
9	Alberta	6	6	7	7	8	10	11	11	11	12
10	British Columbia ²	12	13	15	15	17	18	22	22	23	24
11	Foreign Countries	—	—	—	—	—	—	—	—	—	—
12	Canada	74	77	87	93	112	141	160	181	220	221

1. These estimates must be regarded as provisional, since the statistical coverage of Newfoundland is not yet as complete as for other provinces.

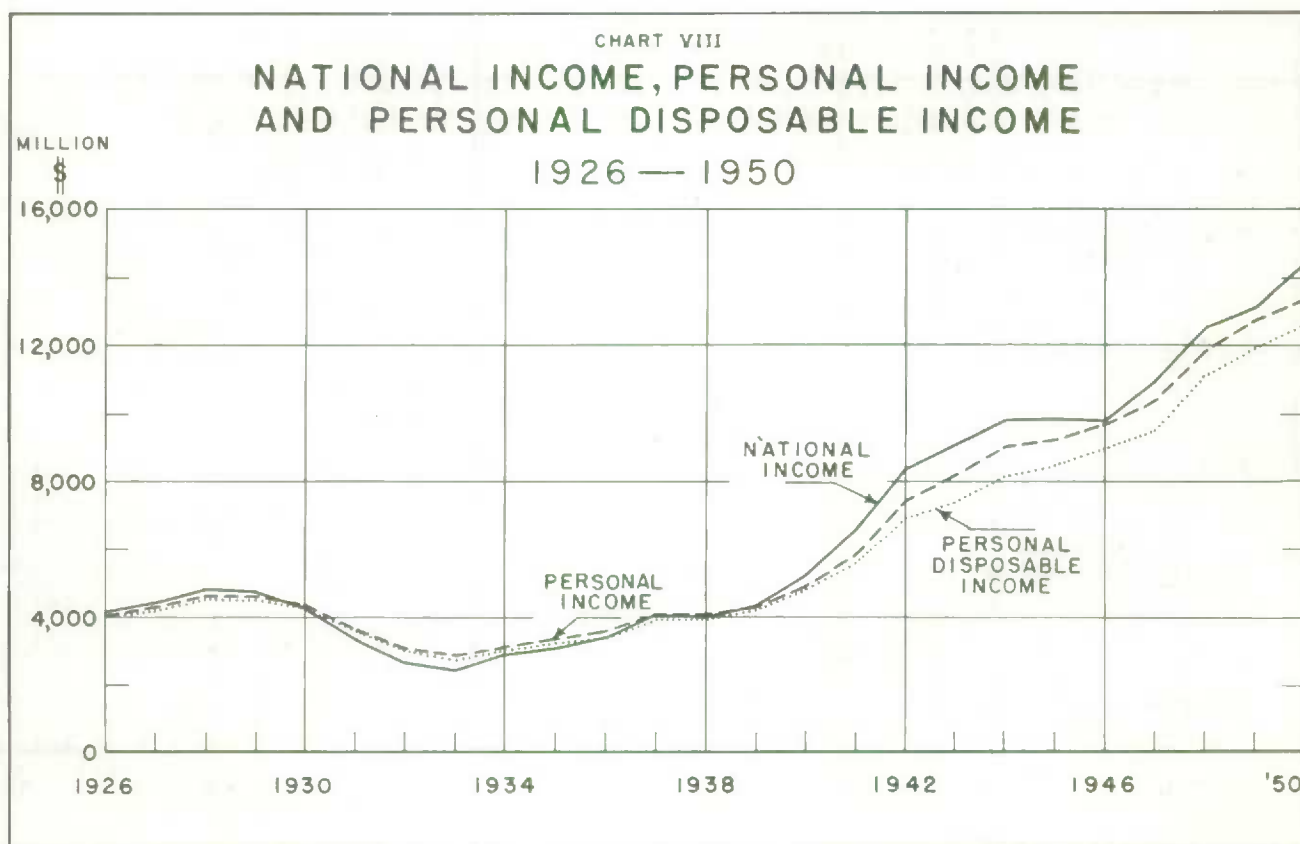


TABLE 31. Government Transfer Payments, Excluding Interest, Geographical Distribution, 1926-1950

1936	1937	1938	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	No
(millions of dollars)															
—	—	—	—	—	—	—	—	—	—	—	—	—	19	22	1
1	1	1	1	1	1	1	1	1	4	9	6	6	7	7	2
8	8	8	9	8	8	9	10	13	29	62	49	44	47	49	3
4	5	5	5	5	5	5	6	8	21	45	34	34	36	38	4
50	48	49	58	51	48	51	56	70	140	250	205	225	246	270	5
81	74	76	78	67	63	64	73	82	180	375	269	266	281	298	6
17	16	15	15	15	13	14	12	15	34	75	53	48	50	54	7
26	48	35	24	23	21	32	11	19	38	88	68	75	73	70	8
12	14	13	12	13	11	20	13	18	40	83	59	58	63	69	9
25	23	24	27	24	24	26	28	33	58	114	95	103	126	133	10
—	—	—	—	—	—	—	—	—	2	5	1	4	2	2	11
224	237	226	229	207	194	222	210	259	546	1,106	839	863	950	1,012	12

2. Includes Yukon and North West Territories.

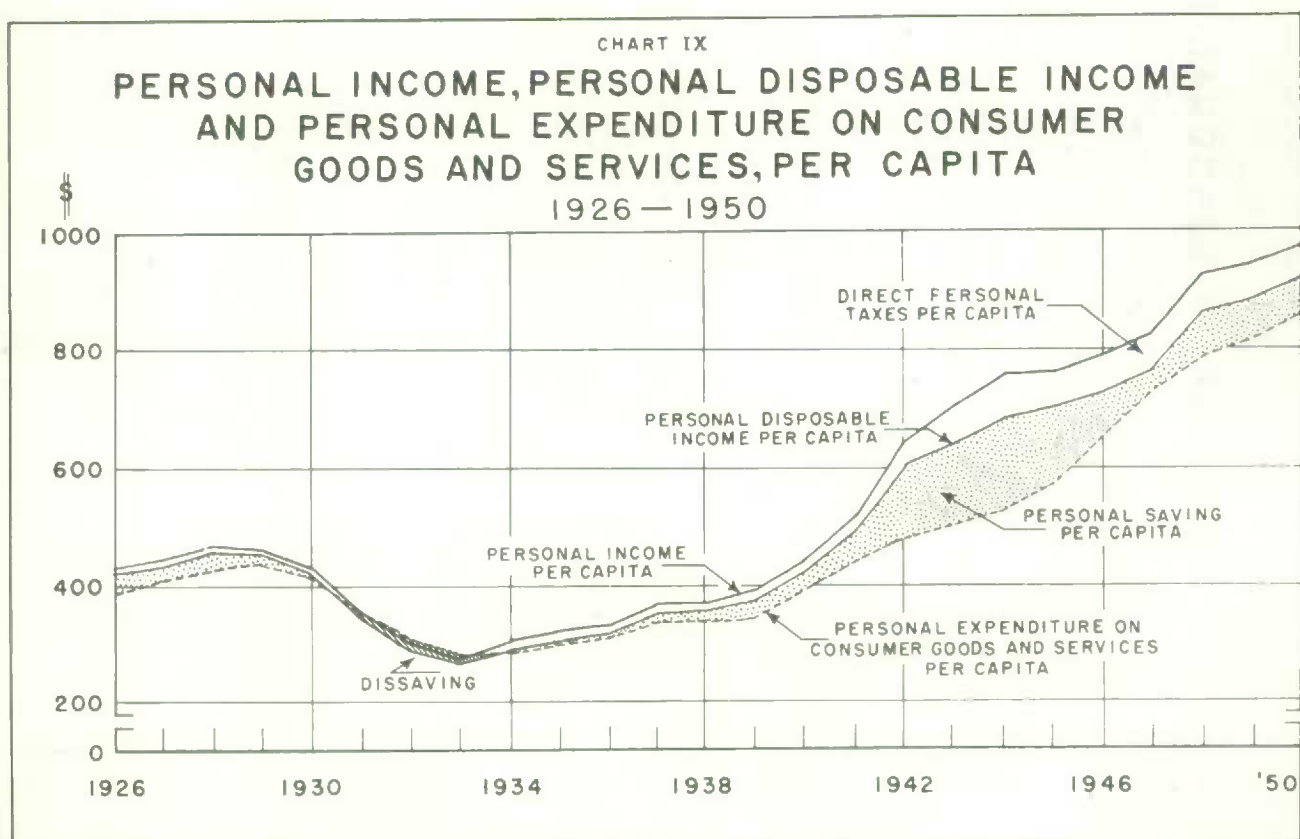
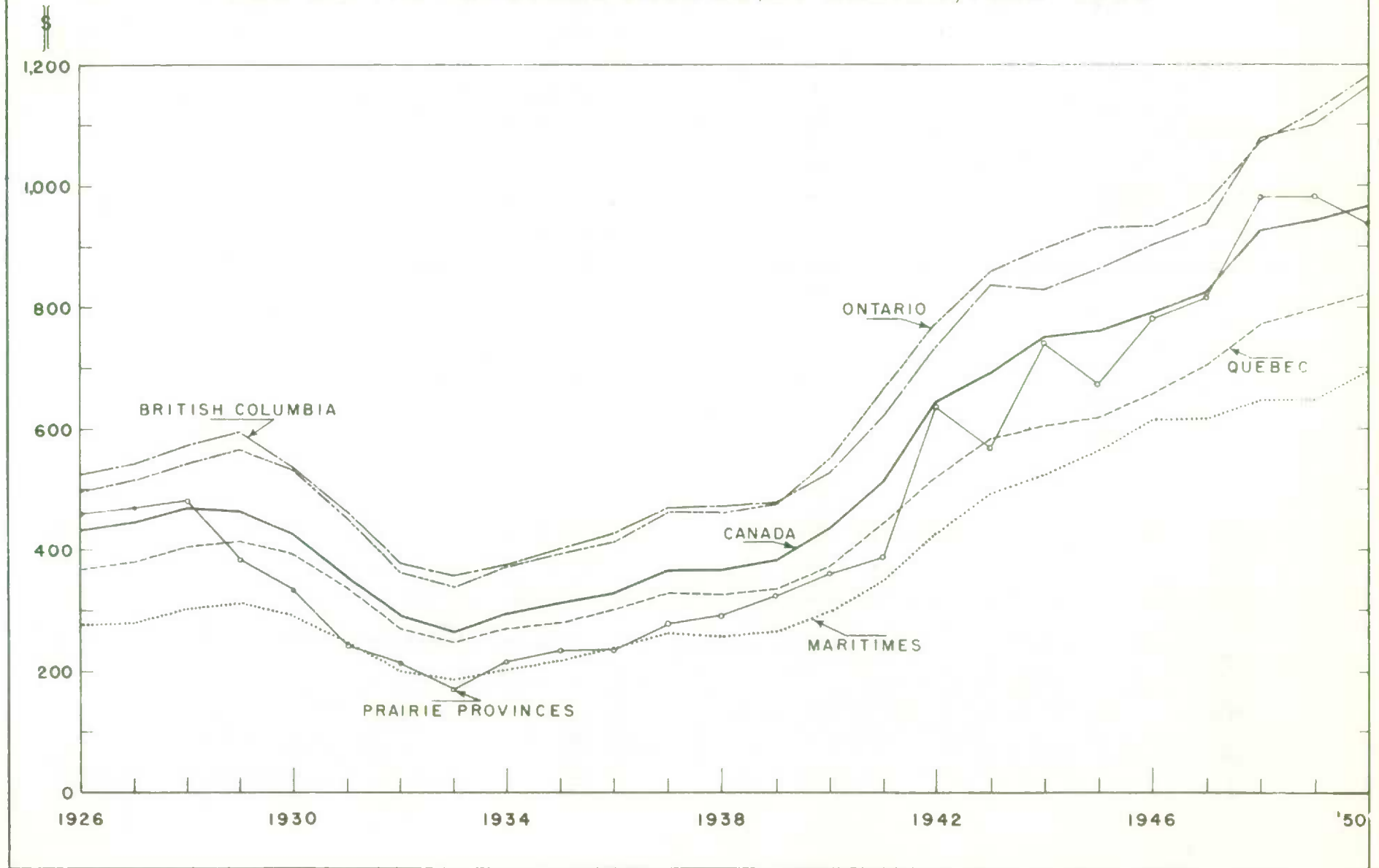


CHART X

PER CAPITA PERSONAL INCOME, BY REGION, 1926-1950



Section 4
GOVERNMENT SUPPLEMENTARY TABLES

TABLE 32. Government Revenue and Expenditure, by Level of Government, 1926-1950¹
Revenue

No.		1926	1927	1928	1929	1930	1931	1932	1933	1934	1935
		(millions of dollars)									
1	Direct Taxes – Persons.....	53	59	59	68	71	63	64	69	64	80
	Income and Excess Profits:										
2	Federal.....	18	23	25	28	27	25	26	29	25	33
3	Provincial and Municipal.....	4	5	5	6	6	8	9	9	9	9
	Succession Duties:										
4	Federal.....	—	—	—	—	—	—	—	—	—	—
5	Provincial.....	16	16	12	16	21	15	11	13	12	20
	Miscellaneous:										
6	Federal.....	1	1	1	1	1	1	2	2	2	2
7	Provincial and Municipal.....	14	14	16	17	16	14	16	16	16	16
8	Direct Taxes – Corporations.....	34	38	45	48	40	33	32	37	52	65
	Income and Excess Profits:										
9	Federal.....	32	35	42	44	36	30	27	32	46	55
10	Provincial.....	2	3	3	4	4	3	5	5	6	10
	Withholding Taxes:										
11	Federal.....	—	—	—	—	—	—	—	5	6	7
12	Indirect Taxes.....	614	637	684	686	600	575	546	545	585	608
13	Federal.....	302	311	340	313	228	215	194	212	239	236
14	Provincial and Municipal.....	312	326	344	373	372	360	352	333	346	372
15	Investment Income.....	88	92	109	103	69	39	36	38	52	65
16	Federal.....	14	11	17	5	- 26	- 49	- 43	- 39	- 28	- 27
17	Provincial and Municipal.....	74	81	92	98	95	88	79	77	80	92
18	Employer and Employee Contributions to Social Insurance and Pension Funds.....	17	20	22	27	29	26	23	21	23	26
19	Federal.....	3	4	4	5	5	5	5	4	4	4
20	Provincial and Municipal.....	14	16	18	22	24	21	18	17	19	22
	Transfers from Other Governments:										
21	Provincial and Municipal.....	15	16	17	17	25	56	62	56	71	74
22	Total Revenue.....	821	862	936	949	834	792	763	771	853	925
23	Federal.....	370	385	429	396	271	227	211	245	294	310
24	Provincial and Municipal.....	451	477	507	553	563	565	552	526	559	615
25	Deficit (+) or Surplus (-).....	- 56	- 47	- 84	- 9	222	311	277	174	190	172
26	Federal.....	- 68	- 68	- 105	- 56	96	160	154	114	93	121
27	Provincial and Municipal.....	12	21	21	47	126	151	123	60	97	51
28	Total Revenue Plus Deficit (or Minus Surplus).....	765	815	852	940	1,056	1,103	1,040	945	1,043	1,097
29	Federal.....	302	317	324	340	367	387	365	359	387	431
30	Provincial and Municipal.....	463	498	528	600	689	716	675	586	656	666

1. For total government revenue and expenditure excluding inter-governmental transfers, see Tables 8 and 9.

TABLE 33. Government Revenue and Expenditure, by Level of Government, 1926-1950¹
Expenditure

No.		1926	1927	1928	1929	1930	1931	1932	1933	1934	1935
		(millions of dollars)									
1	Goods and Services.....	521	567	597	682	767	738	643	526	568	603
2	Federal.....	133	145	152	173	186	159	134	130	143	172
3	Provincial and Municipal.....	388	422	445	509	581	579	509	396	425	431
4	Transfer Payments.....	227	229	233	236	257	291	326	335	396	397
5	Federal.....	152	153	150	145	150	154	161	165	165	163
6	Provincial and Municipal.....	75	76	83	91	107	137	165	190	231	234
7	Subsidies.....	2	3	5	5	7	18	9	8	6	23
8	Federal.....	2	3	5	5	6	18	8	8	8	22
9	Provincial and Municipal.....	—	—	—	—	1	—	1	—	—	1
	Transfers to Other Governments:										
10	Federal.....	15	16	17	17	25	56	62	56	71	74
11	Total Expenditure.....	765	815	852	940	1,056	1,103	1,040	945	1,043	1,097
12	Federal.....	302	317	324	340	367	387	365	359	387	431
13	Provincial and Municipal.....	463	498	528	600	689	716	675	586	656	666

1. For total government revenue and expenditure excluding inter-governmental transfers, see Tables 8 and 9.

TABLE 32. Government Revenue and Expenditure, by Level of Government, 1926-1950¹
Revenue

1936	1937	1938	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	No.
(millions of dollars)															
95	112	115	112	139	296	495	698	838	809	796	791	822	789	735	1
36	41	47	46	71	226	432	630	771	733	711	695	717	674	612	2
11	15	16	16	20	13	1	1	1	—	—	—	—	3	—	3
—	—	—	—	—	2	15	14	16	22	20	30	29	26	34	4
27	37	31	28	23	27	22	24	23	25	34	31	29	29	29	5
2	2	3	3	5	5	5	6	6	6	6	4	6	7	7	6
19	17	18	19	20	23	20	23	21	23	25	31	41	50	53	7
83	101	94	115	327	510	629	640	598	599	654	701	685	731	901	8
71	87	77	98	291	477	624	636	594	596	652	630	566	601	764	9
12	14	17	17	36	33	5	4	4	3	2	71	119	130	137	10
9	10	10	10	13	24	29	27	27	29	29	35	41	47	54	11
674	714	700	716	883	1,128	1,178	1,328	1,378	1,265	1,505	1,784	1,847	1,907	2,050	12
286	331	302	310	453	674	750	889	922	782	957	1,136	1,086	1,048	1,115	13
368	383	398	406	430	454	428	439	456	483	548	648	761	859	935	14
91	87	70	90	132	176	234	311	327	389	363	333	327	357	391	15
- 10	- 16	- 33	- 18	17	54	91	163	164	189	142	102	89	110	137	16
101	103	103	108	115	122	143	148	163	200	221	231	238	247	254	17
28	34	33	35	39	69	114	128	133	136	149	181	224	239	259	18
5	5	5	6	6	31	64	70	76	74	78	100	129	141	158	19
23	29	28	29	33	38	50	58	57	62	71	81	95	98	101	20
91	105	86	79	70	54	150	148	155	157	174	192	150	182	256	21
1,071	1,163	1,108	1,157	1,603	2,257	2,829	3,280	3,456	3,384	3,670	4,017	4,096	4,252	4,646	22
399	460	411	455	856	1,493	2,010	2,435	2,576	2,431	2,595	2,732	2,663	2,654	2,881	23
672	703	697	702	747	764	819	845	880	953	1,075	1,285	1,433	1,598	1,765	24
34	33	152	41	63	- 65	1,561	1,777	2,566	1,687	133	- 773	- 746	- 440	- 558	25
37	- 9	87	2	137	27	1,722	1,941	2,708	1,830	244	- 665	- 762	- 497	- 572	26
- 3	42	65	39	- 74	- 92	- 161	- 164	- 142	- 143	- 111	- 88	16	57	14	27
1,105	1,196	1,260	1,198	1,666	2,192	4,390	5,057	6,022	5,071	3,803	3,244	3,350	3,812	4,088	28
436	451	498	457	993	1,520	3,732	4,376	5,284	4,261	2,839	2,047	1,901	2,157	2,309	29
669	745	762	741	673	672	658	681	738	810	964	1,197	1,449	1,655	1,779	30

TABLE 33. Government Revenue and Expenditure, by Level of Government, 1926-1950¹
Expenditure

1936	1937	1938	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	No.
(millions of dollars)															
600	671	720	735	1,165	1,689	3,726	4,227	5,022	3,704	1,832	1,570	1,798	2,128	2,314	1
165	163	185	222	690	1,204	3,250	3,736	4,488	3,110	1,090	639	679	880	971	2
435	508	535	513	475	485	476	491	534	594	742	931	1,119	1,248	1,343	3
400	410	392	401	378	375	421	471	578	948	1,561	1,302	1,327	1,425	1,454	4
167	174	166	174	181	193	245	287	380	737	1,344	1,042	1,001	1,022	1,022	5
233	236	226	227	197	182	176	184	198	211	217	260	326	403	432	6
14	10	62	- 17	53	74	93	211	267	262	236	180	75	77	64	7
13	9	61	- 18	52	69	87	205	261	257	231	174	71	73	60	8
1	1	1	1	1	5	6	6	6	5	5	6	4	4	4	9
91	105	86	79	70	54	150	148	155	157	174	192	150	182	256	10
1,105	1,196	1,260	1,198	1,666	2,192	4,390	5,057	6,022	5,071	3,803	3,244	3,350	3,812	4,088	11
436	451	498	457	993	1,520	3,732	4,376	5,284	4,261	2,839	2,047	1,901	2,157	2,309	12
669	745	762	741	673	672	658	681	738	810	964	1,197	1,449	1,655	1,779	13

TABLE 34. Government Transfer Payments Including Interest, 1926-1950

No.	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935
	(millions of dollars)									
Federal:										
1 Family Allowances	—	—	—	—	—	—	—	—	—	—
2 War Service Gratuities	—	—	—	—	—	—	—	—	—	—
3 Re-establishment Credits	—	—	—	—	—	—	—	—	—	—
4 Rehabilitation Benefits	—	—	—	—	—	—	—	—	—	—
5 Pensions World Wars I and II ¹	30	32	33	32	37	40	36	35	35	35
6 War Veterans' Allowances	3	3	4	4	5	5	5	4	5	5
7 Unemployment Insurance Benefits	—	—	—	—	—	—	—	—	—	—
8 Prairie Farm Income Plan	—	—	—	—	—	—	—	—	—	—
9 Prairie Farm Assistance Act	—	—	—	—	—	—	—	—	—	—
10 Pensions to Government Employees	3	3	3	2	2	2	2	3	3	3
11 Dominion Grants to War Charities	—	—	—	—	—	—	—	—	—	—
12 Interest on Debt not Incurred to Finance Existing Real Assets	113	112	106	102	101	102	114	119	118	116
13 Miscellaneous	3	3	4	5	5	5	4	4	4	4
14 Total	152	153	150	145	150	154	161	165	165	163
Provincial and Municipal:										
15 Direct Relief	—	—	—	1	4	26	50	74	104	100
16 Workmen's Compensation Benefits	9	10	10	13	14	13	11	10	11	12
17 Old Age Pensions	—	—	2	3	11	15	15	16	19	22
18 Mothers' Allowances	4	4	4	5	5	5	5	5	5	6
19 Pensions to Government Employees	2	2	3	3	3	3	4	4	5	5
20 Provincial and Municipal Grants to Private Non-Commercial Institutions	20	19	23	24	25	26	26	25	28	27
21 Interest on Debt not Incurred to Finance Existing Real Assets	40	40	40	41	44	48	52	55	58	60
22 Miscellaneous	—	1	1	1	1	1	2	1	1	2
23 Total	75	76	83	91	107	137	165	190	231	234
24 GRAND TOTAL	227	229	233	236	257	291	326	355	396	397

1. Excludes pensions paid to non-residents, which are treated as government expenditure on goods and services. In 1950, the amount excluded was \$9 million.

TABLE 35. Subsidies, 1926-1950

No.	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935
	(millions of dollars)									
Federal:										
Department of Agriculture:										
1 Wheat Acreage Reduction	—	—	—	—	—	—	—	—	—	—
2 Oats and Barley	—	—	—	—	—	—	—	—	—	—
3 Fluid Milk	—	—	—	—	—	—	—	—	—	—
4 Butterfat ¹	—	—	—	—	—	—	—	—	—	—
5 Milk-Cheddar Cheese	—	—	—	—	—	—	—	—	—	—
6 Feed Freight Assistance - Western Grain	—	—	—	—	—	—	—	—	—	—
7 Feed Wheat Drawback	—	—	—	—	—	—	—	—	—	—
8 Hog Premiums	—	—	—	—	—	—	—	—	—	—
9 Miscellaneous	—	—	—	—	—	—	—	—	—	—
10 Total ²	—	—	—	—	—	—	—	—	—	—
Commodity Prices Stabilization Corporation:										
Import Subsidies:										
11 Petroleum Products	—	—	—	—	—	—	—	—	—	—
12 Woven Fabrics - Cotton	—	—	—	—	—	—	—	—	—	—
13 Raw Cotton and Linters	—	—	—	—	—	—	—	—	—	—
14 Coal and Coke	—	—	—	—	—	—	—	—	—	—
15 Miscellaneous	—	—	—	—	—	—	—	—	—	—
16 Subtotal	—	—	—	—	—	—	—	—	—	—
Domestic Subsidies:										
17 Milk - Production	—	—	—	—	—	—	—	—	—	—
18 Milk - Consumption	—	—	—	—	—	—	—	—	—	—
19 Butterfat	—	—	—	—	—	—	—	—	—	—
20 Miscellaneous	—	—	—	—	—	—	—	—	—	—
21 Subtotal	—	—	—	—	—	—	—	—	—	—
22 Trading Loss ³	—	—	—	—	—	—	—	—	—	—
23 Total	—	—	—	—	—	—	—	—	—	—
Other Subsidies:										
24 Emergency Gold Mine Assistance	—	—	—	—	—	—	—	—	—	—
25 Drawbacks to Millers	—	—	—	—	—	—	—	—	—	—
26 Emergency Coal Production Board	—	—	—	—	—	—	—	—	—	—
27 Maritime Freight Rates Act	—	1	3	3	4	3	2	2	3	2
28 Movement of Coal	—	—	—	—	1	1	1	3	2	2
29 Wheat Board Trading Loss	—	—	—	—	—	—	—	—	—	7
30 Wheat Bonus	—	—	—	—	—	11	2	—	—	7
31 Miscellaneous	2	2	2	2	1	3	3	3	3	4
32 Total	2	3	5	5	6	18	8	8	8	22
33 Total Federal Subsidies	2	3	5	5	6	18	8	8	8	22
34 Total Provincial Subsidies	—	—	—	—	1	—	1	—	—	1
35 GRAND TOTAL ALL SUBSIDIES	2	3	5	5	7	18	9	8	8	23

1. Transferred from Commodity Prices Stabilization Corporation, May 1943.

2. Department of Agriculture figures as shown in "Agricultural Assistance, War and Post War" (March 1949) have been adjusted by deleting Prairie Farm Income Plan payments which are treated as transfer payments in the National Accounts, and payments for the improvement of cheese factories, which are treated as capital assistance to industry.

TABLE 34. Government Transfer Payments Including Interest, 1926-1950

1936	1937	1938	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	No.
(millions of dollars)															
—	—	—	—	—	—	—	—	—	114	240	261	269	291	307	1
—	—	—	—	—	—	—	—	—	116	322	27	3	—	—	2
—	—	—	—	—	—	—	—	—	13	87	79	43	25	18	3
—	—	—	—	—	—	—	—	2	10	91	79	57	31	18	4
34	34	34	34	33	34	34	36	41	49	60	70	89	87	87	5
8	5	6	7	8	8	8	8	12	20	25	24	23	24	27	6
—	—	—	—	—	—	—	1	3	16	49	31	40	69	99	7
—	—	—	—	—	—	18	—	—	—	—	—	—	—	—	8
—	—	—	—	—	1	15	—	8	6	17	12	21	18	14	9
3	3	4	5	5	6	6	7	9	10	11	15	15	14	17	10
—	—	—	—	—	1	5	10	18	15	3	—	—	—	—	11
119	119	118	118	120	133	153	218	276	355	420	431	431	439	404	12
5	13	9	8	5	4	6	7	11	13	19	13	10	24	31	13
167	174	166	174	181	193	245	287	380	737	1,344	1,042	1,001	1,022	1,022	14
91	83	72	67	36	18	8	7	7	5	7	10	15	17	17	15
13	16	15	15	17	20	23	26	28	30	31	35	38	40	42	16
29	37	39	40	40	40	42	48	58	62	65	82	96	129	146	17
7	8	9	10	10	9	9	10	10	11	12	12	14	16	19	18
5	5	5	6	7	8	8	8	10	10	12	12	14	15	17	19
28	30	32	34	35	36	37	40	41	41	50	71	106	136	140	20
57	54	53	54	51	48	46	43	43	47	35	32	33	36	38	21
3	3	1	1	1	3	3	2	1	5	5	6	10	14	13	22
233	236	226	227	197	182	176	184	198	211	217	260	326	403	432	23
400	410	392	401	378	375	421	471	578	948	1,561	1,302	1,327	1,425	1,454	24

TABLE 35. Subsidies, 1926-1950

1936	1937	1938	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	No.
(millions of dollars)															
—	—	—	—	—	23	23	31	10	1	—	—	—	—	—	1
—	—	—	—	—	—	—	—	—	—	—	14	—	—	—	2
—	—	—	—	—	—	—	5	13	13	14	—	—	—	—	3
—	—	—	—	—	—	—	16	23	24	22	4	—	—	—	4
—	—	—	—	—	—	—	1	4	4	5	1	—	—	—	5
—	—	—	—	—	2	10	16	16	17	19	20	18	14	15	6
—	—	—	—	—	—	—	2	8	7	7	6	—	—	—	7
—	—	—	—	—	—	—	—	14	11	6	5	5	4	5	8
—	—	—	2	4	7	7	7	10	8	7	6	3	2	6	9
—	—	—	2	4	32	40	78	98	85	80	56	26	20	26	10
—	—	—	—	—	—	12	13	12	9	5	2	—	—	—	11
—	—	—	—	—	—	1	3	5	2	6	25	1	—	—	12
—	—	—	—	—	—	—	1	9	13	13	6	1	—	—	13
—	—	—	—	—	—	—	2	7	6	11	8	—	—	—	14
—	—	—	—	—	—	6	16	20	3	10	5	2	—	—	15
—	—	—	—	—	—	19	35	53	33	45	46	2	—	—	16
—	—	—	—	—	—	4	2	—	—	—	—	—	—	—	17
—	—	—	—	—	—	7	19	19	21	11	—	—	—	—	18
—	—	—	—	—	—	6	1	—	—	—	—	—	—	—	19
—	—	—	—	—	—	7	17	14	25	14	3	7	2	—	20
—	—	—	—	—	—	18	44	32	46	25	3	7	2	—	21
—	—	—	—	—	—	—	9	16	15	17	11	6	1	—	22
—	—	—	—	—	—	37	88	101	94	87	60	15	1	—	23
—	—	—	—	—	—	—	—	—	—	—	—	5	14	10	24
—	—	—	—	—	—	2	16	20	16	25	24	—	11	—	25
—	—	—	—	—	—	—	5	7	9	8	8	—	—	—	26
3	3	3	2	4	4	5	5	5	4	5	5	7	7	8	27
2	2	2	4	4	5	5	2	2	2	2	1	2	3	3	28
5	—	53	29	37	24	9	—	14	31	10	6	4	4	2	29
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	30
3	4	3	3	3	4	7	11	14	16	14	14	12	13	11	31
13	9	61	20	48	37	10	39	62	78	64	58	30	52	34	32
13	9	61	18	52	69	87	205	261	257	231	174	71	73	60	33
1	1	1	1	1	5	6	6	6	5	5	6	4	4	4	34
14	10	62	17	53	74	93	211	267	262	236	180	75	77	64	35

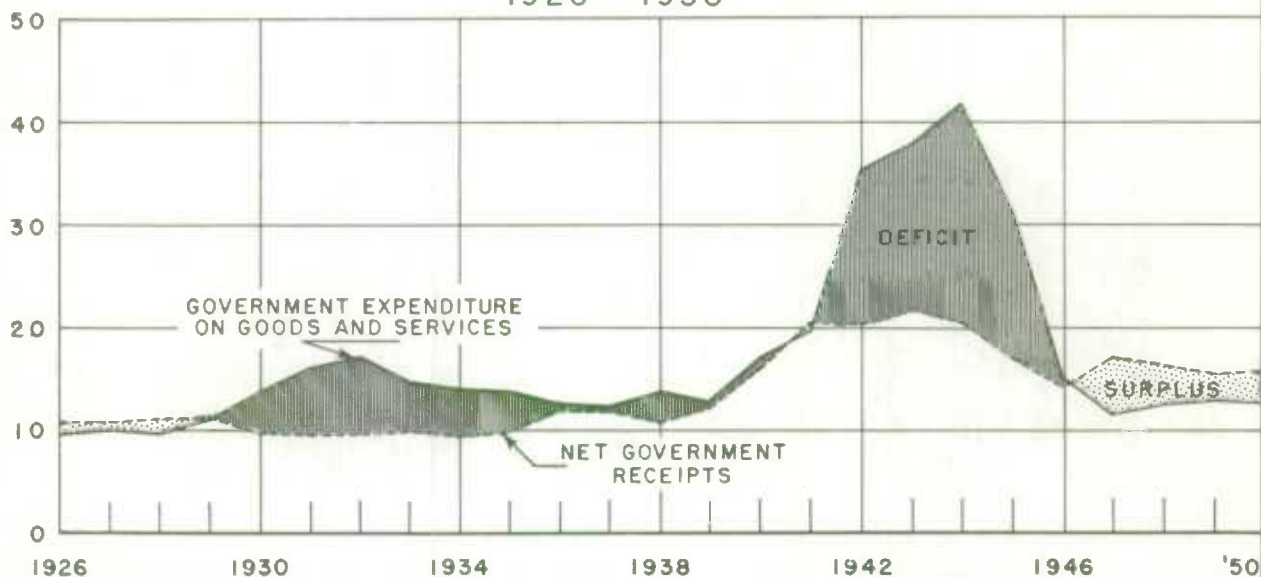
3. Includes Canadian Wool Board.

CHART XI

GOVERNMENT EXPENDITURE ON GOODS AND SERVICES AND NET GOVERNMENT RECEIPTS* AS A PERCENTAGE OF GROSS NATIONAL PRODUCT

PER CENT

1926 - 1950



* Net Government receipts equals total Government revenue less transfer payments and subsidies

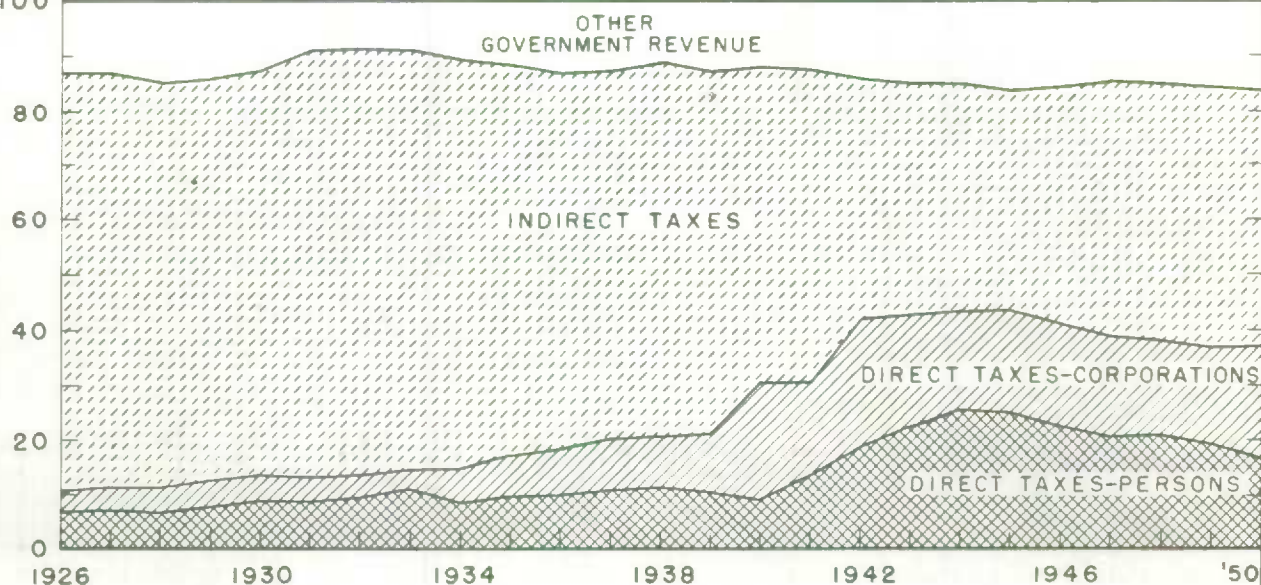
CHART XII

PERCENTAGE DISTRIBUTION OF GOVERNMENT REVENUE BY SOURCE

1926 - 1950

PER CENT

100



Section 5
MISCELLANEOUS TABLES

TABLE 36. Personal Expenditure on Consumer Goods and Services, 1926-1950¹

No.		1926	1927	1928	1929	1930	1931	1932	1933	1934	1935
		(millions of dollars)									
1	Food .....	..	..	..	..	1,068	..	..	..	..	791
2	Tobacco and Alcoholic Beverages .....	..	..	..	..	277	..	..	..	..	193
3	Tobacco Products .....	..	..	..	..	112	..	..	..	..	91
4	Alcoholic Beverages .....	..	..	..	..	165	..	..	..	..	102
5	Clothing and Personal Furnishings .....	..	..	..	..	570	..	..	..	..	429
6	Men's & Boys' Clothing .....	..	..	..	..	144	..	..	..	..	117
7	Women's & Children's Clothing .....	..	..	..	..	202	..	..	..	..	151
8	Footwear .....	..	..	..	..	82	..	..	..	..	62
9	Laundering & Dry Cleaning .....	..	..	..	..	24	..	..	..	..	18
10	Other .....	..	..	..	..	118	..	..	..	..	81
11	Shelter ² .....	..	..	..	..	692	662	591	526	513	534
12	Household Operation .....	..	..	..	..	551	..	..	..	..	433
13	Fuel .....	..	..	..	..	128	..	..	..	..	110
14	Electricity .....	..	..	..	..	34	35	36	36	36	37
15	Gas .....	..	..	..	..	22	20	20	19	18	18
16	Telephone .....	..	..	..	..	36	34	31	29	30	29
17	Furniture .....	..	..	..	..	57	..	..	..	..	41
18	Other .....	..	..	..	..	274	..	..	..	..	198
19	Transportation .....	..	..	..	..	374	295	264	249	288	310
20	Street-car, railway and other fares .....	..	..	..	..	128	104	89	81	64	86
21	New automobiles .....	..	..	..	..	79	47	32	33	53	70
22	Other user-operated ³ .....	..	..	..	..	167	144	143	135	151	154
23	Personal & Medical Care and Death Expenses .....	..	..	..	..	273	250	207	186	193	215
24	Medical & Dental Care .....	..	..	..	..	92	83	60	49	48	57
25	Hospital Care, Private Duty Nursing, Accident & Sickness Insurance .....	..	..	..	..	62	60	53	52	56	64
26	Other .....	..	..	..	..	119	107	94	85	89	94
27	Miscellaneous .....	..	..	..	..	399	345	315	318	322	338
28	Motion Picture Theatres ⁴ .....	..	..	..	..	38	34	28	25	25	27
29	Newspapers & Magazines .....	..	..	..	..	32	31	30	28	29	31
30	Net Expenditure Abroad .....	..	..	..	..	- 63	- 75	- 60	- 42	- 53	- 50
31	Other .....	..	..	..	..	392	355	317	307	321	330
32	Grand Total	3,687	3,919	4,194	4,393	4,204	3,646	3,108	2,887	3,077	3,243
33	Durable Goods ⁵	279	324	348	387	308	232	167	150	194	229
34	Non-Durable Goods	2,060	2,197	2,377	2,459	2,363	2,014	1,705	1,609	1,758	1,830
35	Services	1,348	1,398	1,469	1,547	1,533	1,400	1,236	1,128	1,125	1,184

1. For complete list of content of groups, see page 123.

2. Excludes transient shelter.

3. Includes automobile running expenses and net purchases of used automobiles.

TABLE 37. Personal Income (or Expenditure) in Kind, 1926-1950

No.		1926	1927	1928	1929	1930	1931	1932	1933	1934	1935
		(millions of dollars)									
	Food:										
1	Farm consumed farm produce	129	125	126	129	116	79	61	70	77	80
2	Other ¹	15	16	16	18	17	11	9	9	13	13
	Shelter:										
3	Imputed Residential Rent	322	330	345	361	369	359	326	295	283	291
4	Imputed Lodging, Non-Residential ²	7	8	8	9	8	6	4	5	6	6
5	Other ³	55	55	55	54	54	53	47	44	41	42
6	Total Income in Kind	528	534	550	571	564	508	447	423	420	432

1. Includes food issued to members of the armed forces and to employees in lieu of wages.

2. Lodging in bunk houses, ships, hotels, etc., furnished to employees in lieu of wages.

TABLE 36. Personal Expenditure on Consumer Goods and Services, 1926-1950¹

1936	1937	1938	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	No.
(millions of dollars)															
850	934	915	919	1,055	1,286	1,518	1,655	1,769	1,885	2,085	2,407	2,751	2,882	3,036	1
211	244	266	281	334	411	507	577	624	751	846	911	987	1,044	1,073	2
96	110	111	118	142	173	212	266	279	322	330	347	378	402	422	3
115	134	155	163	192	238	295	311	345	429	516	564	609	642	651	4
463	504	466	490	592	720	855	898	966	1,063	1,191	1,318	1,472	1,569	1,543	5
127	139	126	131	151	180	210	215	230	252	301	345	375	392	392	6
164	179	164	174	214	260	307	326	353	385	448	498	578	624	596	7
65	70	66	66	74	94	110	114	124	139	156	176	190	203	202	8
20	22	24	25	29	36	42	43	46	49	57	66	80	89	92	9
87	94	86	94	124	150	186	200	213	238	229	233	249	261	261	10
556	592	615	629	661	710	750	782	807	826	866	954	1,057	1,190	1,350	11
464	515	504	522	583	643	657	648	660	729	935	1,141	1,293	1,398	1,476	12
116	121	118	127	133	156	170	197	191	208	236	286	329	337	364	13
38	39	41	45	50	52	55	55	58	60	68	74	80	90	102	14
19	19	18	18	19	21	21	22	23	25	26	26	29	31	33	15
31	33	33	34	37	41	44	50	52	56	62	64	70	84	89	16
46	56	51	52	63	69	71	67	77	88	125	149	156	163	173	17
214	247	243	246	281	304	296	257	259	292	416	542	629	693	715	18
332	380	378	392	434	493	404	425	465	521	771	997	1,062	1,220	1,483	19
94	100	97	102	110	133	173	215	228	245	269	283	298	307	308	20
80	98	88	81	96	91	1	—	—	—	100	236	236	344	553	21
158	182	193	209	228	269	230	210	237	276	402	478	528	569	622	22
228	247	254	257	284	310	326	346	369	409	478	547	610	678	745	23
58	65	72	75	82	88	90	92	92	108	128	145	157	172	188	24
72	72	74	71	80	77	79	85	98	107	123	152	178	206	240	25
98	110	108	111	122	145	157	189	179	194	227	250	275	300	317	26
353	361	417	414	456	480	497	396	527	625	805	898	880	982	1,156	27
29	32	33	34	37	41	46	52	53	55	60	63	70	79	84	28
33	34	36	38	40	42	46	49	49	51	61	66	71	78	76	29
62	71	49	56	31	47	20	94	12	76	11	47	123	74	33	30
353	366	397	398	410	444	425	389	413	443	695	816	862	899	1,029	31
3,457	3,777	3,815	3,904	4,399	5,053	5,514	5,727	6,187	6,811	7,977	9,173	10,112	10,963	11,862	32
259	313	291	292	361	390	295	278	296	338	590	852	914	1,084	1,343	33
1,962	2,154	2,145	2,210	2,520	3,032	3,465	3,673	3,928	4,327	5,073	5,776	6,461	6,799	7,114	34
1,236	1,310	1,379	1,402	1,518	1,631	1,754	1,776	1,963	2,146	2,314	2,545	2,737	3,080	3,405	35

4. Excludes amusement taxes.

5. Includes only jewellery, watches, clocks, silverware, home furnishings, furniture, appliances and radios, and automobiles. See page 123.

.. Detail not shown pending further research.

TABLE 37. Personal Income (or Expenditure) in Kind, 1926-1950

1936	1937	1938	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	No.
(millions of dollars)															
90	92	91	92	99	112	144	165	174	183	192	225	255	227	210	1
14	18	16	18	42	72	108	142	155	139	55	45	56	57	59	2
299	312	322	328	337	351	364	374	384	394	410	457	511	590	686	3
7	8	8	7	8	10	12	12	13	14	15	15	18	18	19	4
42	42	42	44	57	65	82	99	98	103	78	87	99	102	111	5
452	472	479	489	543	610	710	792	824	833	750	829	939	994	1,085	6

3. Includes clothing issued to the armed forces, wood fuel cut and used on farms, and estimated services rendered by banks to persons without specific charge.

TABLE 38. Analysis of Corporation Profits, 1926-1950

No.		1926	1927	1928	1929	1930	1931	1932	1933	1934	1935
		(millions of dollars)									
1	Corporation Profits before Taxes	403	456	530	530	315	159	17	128	287	338
2	Deduct: Income and Excess Profits Taxes	- 34	- 38	- 45	- 48	- 40	- 33	- 32	- 37	- 52	- 65
3	Corporation Profits after Taxes	369	418	485	482	275	126	- 15	91	235	273
4	Deduct: Dividends Paid to Non-Residents	- 95	-106	-115	-158	-177	-150	-130	- 98	-104	-120
5	Corporation Profits Retained in Canada	274	312	370	324	98	- 24	-145	- 7	131	153
6	Deduct: Dividends Paid to Canadian Persons	- 91	- 91	-102	-108	- 95	- 93	- 25	- 68	- 62	- 82
7	Charitable Contributions from Corporations	- 4	- 4	- 5	- 5	- 3	- 2	- 2	- 2	- 2	- 3
8	Undistributed Corporation Profits	179	217	263	211	-	-119	-172	- 77	47	68

TABLE 39. Depreciation Allowances and Similar Business Costs, 1926-1950, Classified By "Type" and "Form of Organization"

No.		1926	1927	1928	1929	1930	1931	1932	1933	1934	1935
		(millions of dollars)									
	By Type:										
1	Charges Relating to Capital Consumption ¹	505	547	603	643	634	565	497	452	455	466
2	Other Charges ²	53	53	56	66	50	53	69	95	48	54
3	Total Depreciation Allowances and Similar Business Costs (1 + 2) = (4 + 5 + 6)	558	600	659	709	684	618	566	547	503	520
	By Form of Organization:										
4	Corporations	249	273	306	339	319	282	264	270	231	242
5	Individuals and Unincorporated Business ³	273	288	308	326	320	296	270	245	236	240
6	Government Business Enterprises	36	39	45	44	45	40	32	32	36	36

1. Includes charges for depreciation, obsolescence, amortization and capital outlay charged to current expense; and claim portion of business and residential property insurance.

2. Includes bad debt charges (less recoveries) and claim portion of business theft, liability and fidelity insurance. In the year 1946 large recoveries were shown by chartered banks.

TABLE 38. Analysis of Corporation Profits, 1926-1950

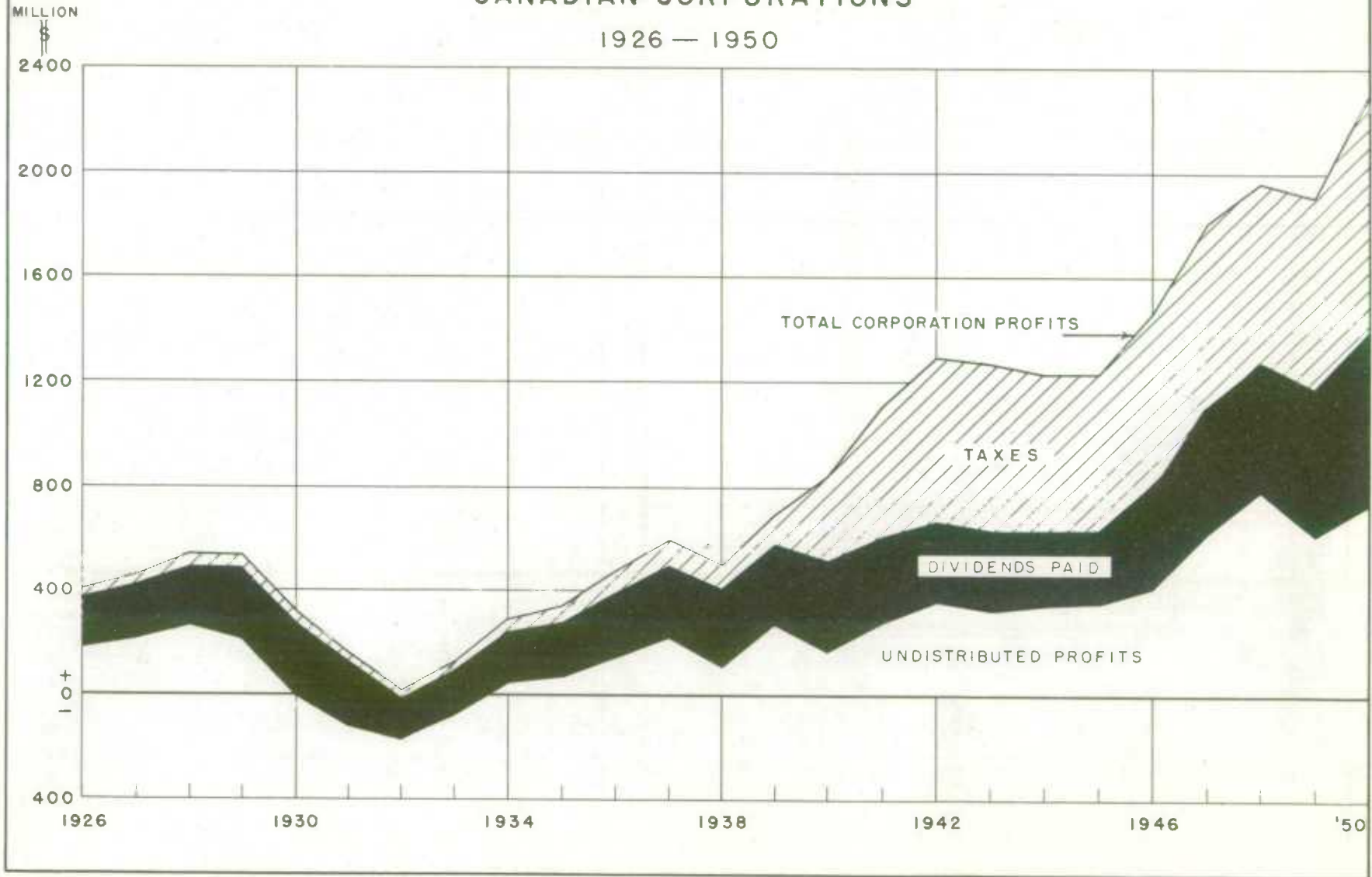
1936	1937	1938	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	No.
(millions of dollars)															
465	590	499	689	836	1,108	1,292	1,267	1,221	1,226	1,455	1,800	1,955	1,906	2,300	1
- 83	- 101	- 94	- 115	- 327	- 510	- 629	- 640	- 598	- 599	- 654	- 701	- 685	- 731	- 901	2
382	489	405	574	509	598	663	627	623	627	801	1,099	1,270	1,175	1,399	3
- 161	- 166	- 175	- 177	- 182	- 168	170	- 156	- 153	- 138	- 205	- 248	- 249	- 317	- 404	4
221	323	230	397	327	430	493	471	470	489	596	851	1,021	858	995	5
- 78	- 100	- 118	- 119	- 157	- 147	- 126	- 139	- 118	- 128	- 173	- 215	- 211	- 228	- 244	6
- 4	- 5	- 4	- 6	- 7	- 10	- 12	- 12	- 11	- 12	- 12	- 17	- 22	- 23	- 25	7
139	218	108	272	163	273	355	320	341	349	411	619	788	607	726	8

TABLE 39. Depreciation Allowances and Similar Business Costs, 1926-1950, Classified By "Type" and "Form or Organization"

1936	1937	1938	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	No.
(millions of dollars)															
489	528	540	567	673	816	959	953	922	887	885	1,070	1,228	1,382	1,550	1
45	44	41	43	47	42	43	35	35	41	18 ²	48	48	55	64	2
534	572	581	610	720	858	1,002	988	957	928	903	1,118	1,276	1,437	1,614	3
245	268	269	291	398	503	591	551	498	480	436	596	687	782	866	4
246	259	267	273	278	297	318	329	343	355	392	452	511	576	667	5
43	45	45	46	44	58	93	108	116	93	75	70	78	79	81	6

3. Including co-operatives and non-commercial institutions.

CHART XIII
TAXES, DIVIDENDS AND PROFITS
 OF
CANADIAN CORPORATIONS
 1926 — 1950



Section 6

RECONCILIATION STATEMENTS

TABLE 40. Accrued Net Income of Farm Operators from Farm Production, 1926-1950
Reconciliation Statement

No.		1926	1927	1928	1929	1930	1931	1932	1933	1934	1935
		(millions of dollars)									
1	Net Income of Farm Operators from Farming Operations ¹	630	644	664	433	340	138	134	117	210	242
2	Deduct: Amounts Included in Investment Income ²	- 23	- 25	- 25	- 26	- 22	- 19	- 15	- 14	- 15	- 16
3	Deduct: Transfer Payments under Prairie Farm Income Plan and Prairie Farm Assistance Act ³	—	—	—	—	—	—	—	—	—	—
4	Equals: Net Income Received by Farm Operators From Farm Production.....	607	619	639	407	318	119	119	103	195	226
5	Adjustment on grain transactions ⁴	12	- 7	16	1	5	- 23	- 11	- 29	- 21	- 4
6	Accrued Net Income of Farm Operators from Farm Production ⁵	619	612	655	408	323	96	108	74	174	222

1. Except for 1949 and 1950, these figures are as published by the Agriculture Division, Dominion Bureau of Statistics. In 1949 and 1950, provisional estimates for Newfoundland are included.

2. This item includes corporation profits in agriculture and imputed net rent of owner-occupied houses.

3. These items are deducted since transfer payments are excluded from "Net National Income at Factor Cost".

TABLE 41. Gross Domestic Investment (excluding Inventories), 1926-1950
Reconciliation Statement

No.		1926	1927	1928	1929	1930	1931	1932	1933	1934	1935
		(millions of dollars)									
1	Total Private and Public Investment in Canada ¹	917	1,087	1,296	1,518	1,287	881	491	327	416	505
2	Deduct: Government Housing ²	—	—	—	—	—	—	—	—	—	—
3	Deduct: Other Government Investment ³	- 108	- 138	- 160	- 188	- 233	- 188	- 129	- 88	- 110	- 127
4	Deduct: Other Adjustments ⁴	—	—	—	—	—	—	—	—	—	—
5	Total Gross Domestic Investment (excluding inventories) (1-2-3-4) = (6+7+8).....	809	949	1,136	1,330	1,054	693	362	239	306	378
6	New Residential Construction ⁵	212	217	236	247	204	168	96	76	98	114
7	New Non-Residential Construction ⁵	240	299	411	486	381	264	121	79	92	118
8	New Machinery and Equipment ⁵	357	433	489	597	469	261	145	84	116	146

1. As defined in the publication "Private and Public Investment in Canada, 1926-1951". Minor differences in 1949 and 1950 result from recent statistical revisions.

2. Excluding residential construction under Veterans' Land Act and construction of veterans' rental housing by Central Mortgage and Housing Corporation, which is included under lines 5 and 6.

TABLE 42. Analysis and Reconciliation of Exports and Imports, 1926-1950

No.		1926	1927	1928	1929	1930	1931	1932	1933	1934	1935
		(millions of dollars)									
	Exports of Goods and Services:										
1	Merchandise Exports ¹	1,272	1,215	1,341	1,178	880	601	495	532	648	732
2	Gold Available for Export ¹	30	32	40	37	39	57	70	82	114	119
3	Receipts from Services rendered to Non-Residents (including dividends and interest received from abroad).....	363	386	407	431	378	314	243	215	258	294
4	Subtotal: "Current Receipts" as per "Canadian Balance of International Payments" ¹	1,665	1,633	1,788	1,646	1,297	972	808	829	1,020	1,145
5	Adjustments - Official Contributions ²	—	—	—	—	—	—	—	—	—	—
6	Other (net) ²	- 15	- 15	- 15	- 14	- 11	- 5	- 4	- 3	- 2	- 2
7	Total "Exports" as per National Accounts ³	1,650	1,618	1,773	1,632	1,286	967	804	826	1,018	1,143
	Imports of Goods and Services:										
8	Merchandise Imports ¹	973	1,057	1,209	1,272	973	580	398	368	484	526
9	Payments for Services rendered by Non-Residents (including interest and dividends paid abroad).....	565	586	611	685	661	566	506	463	468	494
10	Subtotal: "Current Expenditure" as per "Canadian Balance of International Payments" ¹	1,538	1,643	1,820	1,957	1,634	1,146	904	831	952	1,020
11	Adjustments ²	- 16	- 14	- 12	- 12	- 9	- 4	- 3	- 3	- 4	- 3
12	Total "Imports" as per National Accounts ³	1,522	1,629	1,808	1,945	1,625	1,142	901	828	948	1,017

1. As presented in reports on the "Canadian Balance of International Payments" (Balance of Payments Section, Dominion Bureau of Statistics).

2. These adjustments are necessary to ensure consistency within the overall framework of the Accounts. Included are the following items:—

(i) Deduction of "Official Contributions" (Mutual Aid, U.N.R.R.A. and Military Relief), since these are included with "Government Expenditure on Goods and Services" in the National Accounts.

(ii) Deduction of migrants' capital and inheritances, which are treated as capital transactions in the National Accounts.

(iii) Adjustments to exclude Newfoundland from the balance of payments in the years 1940-1948.

(iv) Miscellaneous adjustments arising from special wartime transactions.

TABLE 40. Accrued Net Income of Farm Operators from Farm Production, 1926-1950
Reconciliation Statement

1936	1937	1938	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	No.
(millions of dollars)															
241	317	371	455	486	517	1,088	878	1,240	972	1,139	1,206	1,682	1,632	1,496	1
- 20	- 21	- 17	- 18	- 17	- 20	- 20	- 23	- 28	- 26	- 32	- 33	- 34	- 34	- 38	2
—	—	—	- 2	- 10	- 7	- 33	—	- 6	- 6	- 17	- 12	- 21	- 18	- 14	3
221	296	354	435	459	490	1,035	853	1,206	940	1,090	1,161	1,627	1,600	1,444	4
- 24	- 6	5	- 50	33	—	- 47	- 50	- 21	70	22	62	- 109	- 96	135	5
197	290	359	383	492	490	988	803	1,185	1,010	1,112	1,223	1,518	1,504	1,579	6

4. Since the National Income purports to measure earnings out of current production rather than receipts of income, it is appropriate to include in Table 1 income accruing to farm operators from farm production rather than income received. Accordingly, an adjustment, consisting of two parts, is made. The first part takes account of the undistributed earnings of the Canadian Co-operative Wheat Producers and the Canadian Wheat Board. The second part of the adjustment allows for the fact that current earnings of these agencies are calculated on the basis of the change in book values of inventories, whereas the required valuation of inventories for the National Accounts is the value of the physical change. All the figures are transformed to a calendar year basis.

5. See also Table 1.

TABLE 41. Gross Domestic Investment (excluding Inventories), 1926-1950
Reconciliation Statement

1936	1937	1938	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	No.
(millions of dollars)															
590	828	773	765	1,048	1,463	1,542	1,485	1,309	1,284	1,703	2,489	3,175	3,495	3,811	1
—	—	—	—	—	- 11	- 30	- 30	- 12	- 14	- 42	- 34	- 31	- 27	- 32	2
- 121	- 181	- 168	- 169	- 230	- 374	- 446	- 523	- 413	- 284	- 283	- 334	- 459	- 500	- 590	3
—	—	—	—	—	—	- 22	- 87	- 25	—	—	—	—	—	—	4
469	647	605	605	818	1,078	1,044	845	859	986	1,398	2,121	2,685	2,968	3,189	5
139	176	159	185	200	233	194	174	225	272	371	506	637	742	801	6
150	190	171	166	210	288	354	366	257	252	443	599	818	903	1,010	7
180	281	275	254	408	557	496	305	377	462	584	1,016	1,230	1,323	1,378	8

3. Included in "Government Expenditure on Goods and Services".

4. United States government expenditure on the wartime "Canol" project.

5. See also Table 2.

TABLE 42. Analysis and Reconciliation of Exports and Imports, 1926-1950

1936	1937	1938	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	No.
(millions of dollars)															
954	1,041	844	906	1,202	1,732	2,515	3,050	3,590	3,474	2,393	2,723	3,030	2,989	3,139	1
132	145	161	184	203	204	184	142	110	96	96	99	119	139	163	2
344	407	356	367	371	522	677	872	857	886	878	924	998	949	927	3
1,430	1,593	1,361	1,457	1,776	2,458	3,376	4,064	4,557	4,456	3,365	3,748	4,147	4,077	4,229	4
—	—	—	—	—	—	- 1,002	- 518	- 960	- 858	- 97	- 38	- 19	—	—	5
- 2	- 2	- 5	- 6	32	9	- 13	- 102	- 36	- 1	- 58	- 70	- 74	- 66	- 56	6
1,428	1,591	1,356	1,451	1,808	2,467	2,361	3,444	3,561	3,597	3,210	3,638	4,054	4,011	4,173	7
612	776	649	713	1,006	1,264	1,406	1,579	1,396	1,442	1,822	2,535	2,598	2,696	3,129	8
574	637	612	618	621	703	869	1,279	2,141	1,468	1,083	1,126	1,078	1,194	1,416	9
1,186	1,413	1,261	1,331	1,627	1,967	2,275	2,858	3,539	2,910	2,905	3,661	3,678	3,890	4,545	10
- 3	- 4	- 4	- 3	2	9	32	59	30	—	- 27	- 40	- 40	- 53	- 63	11
1,183	1,408	1,257	1,328	1,629	1,976	2,307	2,917	3,569	2,910	2,878	3,621	3,636	3,837	4,482	12

3. See also Table 2.

Part II

CONCEPTS, SOURCES AND METHODS

Section 1

REVIEW OF SOURCES AND METHODS, AND SUMMARY OF CONCEPTUAL FRAMEWORK

This section reviews the statistical sources on which Canada's National Accounts draw, and procedures used in making the required estimates. It aims primarily to give the users of the data a general view of the content of the various aggregates and background to appraise the reliability of the estimates. More detailed and comprehensive descriptions than

could be given here will appear in a volume to be prepared when the system of accounts and the statistical estimates have been brought to a relatively complete and "final" stage. In order to provide perspective, the discussion is introduced with a summary of the conceptual framework which underlies the Accounts.

CONCEPTUAL FRAMEWORK

The pivot of national accounting is the measurement of the nation's output during a period of time. The question arises "What is output?"

All newly-produced goods and services of the market economy, that is, which are bought and sold for money, are included in the term "output", as used in contemporary national accounting terminology. In a number of cases, however, the definition is broadened to include production for which there is no corresponding money flow, involving "imputation" of income and expenditure. The main categories included in this class are farm production consumed on the farm, imputed rents of owner-occupied houses, board and living allowances received in kind by employees and certain transactions of financial intermediaries.¹ Since only output currently produced is measured, capital gains and losses are excluded; these do not represent a return for the current use of economic resources.

In the earlier stages of national income development in Canada measurement of output was not only the pivot but the almost exclusive focus of the statistician's attention. Thus, attempts were made to measure the nation's output by subtracting certain outlays from estimates of gross production of goods and services. A little later, the nation's output was identified with various concepts of national income. Although, in the more advanced stages of national income measurement, this total was distributed by industry, by province, and even by factor shares, main emphasis was still put on single overall aggregates of economic activity.

1. All these imputations have a counterpart in the market economy which provides a reasonable basis for their valuation. Thus, farm production consumed on the farm is valued at prices for which it could otherwise be sold by the farmer; rents of owner-occupied houses are based on comparable paid rentals; income in kind received by employees is valued at cost to the employer.

A new departure in national accounting began in Canada in 1944, in line with similar developments in the United States and the United Kingdom. The new departure consisted in a shift of emphasis from measurement of single aggregates to construction of interrelated summaries of the constituent transactions.

Measurement of total output remains still a primary target; but the task is accomplished, not by direct assault, but through an encircling movement which brings into view the setting from which output of different size and composition emerges.

The basis of the new approach is simply the fact that underlying production and distribution of goods and services is a network of transactions; and the realization that if these transactions can be combined and summarized into classes having economic significance a great deal of valuable information on the functioning of the economy is produced. Further, since there are two sides to all transactions—expenditure of one group is matched by corresponding receipts of another group—it should be possible to construct an accounting system for the economy which portrays flows of money between the major groups in the economy.

These considerations lead to the following procedures: to begin with, we set ourselves the task of measuring, in terms of current dollars, and without duplication, the market value of goods and services produced in a given period, say a year, by Canadian factors of production. In line with the two-sidedness of transactions, this task can be accomplished in two different ways. One way is to add together all costs arising in the production of goods and services. For the economy as a whole, these costs consist first of factor costs: that is to say, the earnings of the factors of production; wages and salaries, profits, interest, net rent and net income of unincorporated business. The sum of these

factor costs is the **Net National Income**. To arrive at the total which measures production at market prices, it is necessary to add non-factor costs, i.e. depreciation allowances and similar business costs, as well as indirect taxes less subsidies. This total is called the **Gross National Product**.

Another way of measuring the market value of goods and services produced by Canadian factors, without duplication, is to add together all final sales made in this period, adjusted for changes in inventories. For what is produced must be disposed of, either by sales or addition to inventories. Four significant types of sales can be readily distinguished: sales to consumers, sales to governments, sales to business on capital account (gross domestic investment) and sales to non-residents (exports). Since total sales include the value of imported goods and services and since the purpose here is to measure only production of Canadian factors, imports of goods and services are deducted from the grand total of sales.

It bears emphasis that only final sales are counted in this enumeration. All sales to consumers (personal expenditure on consumer goods and services), to governments (government expenditure on goods and services) and exports (of goods and services) during the year are automatically counted as final. Sales to business are treated as final only if they remain within the business sector at the end of the period under consideration—as capital formation, that is, investment in construction and equipment or inventories. Inter-business sales of commodities and services which are resold to persons, governments, or non-residents, are not counted separately since they are automatically included already at the point of purchase in these three sectors. In this manner, double-counting is avoided¹.

Since they measure the same thing—output of goods and services—Gross National Product and Gross National Expenditure must add up to the same total. If all enterprises and other economic units in the economy were to publish accurate accounts on a uniform basis, the two statistical totals would in fact be equal. These conditions are not fulfilled in practice. National Accounts must summarize transactions of enterprises that do not keep accurate accounts on the same basis, together with transactions of households, farms and small concerns, many of which do not keep accounts at all. For these reasons, some discrepancy between the two totals is inevitable, but considering the overall magnitude involved it is interesting to note how close a balance is in fact achieved. However, close balance does not necessarily mean absence of error either in the components or in the aggregates, because of the possibility of compensating errors.

1. For example, if Firm A buys from Firm B tires to assemble an automobile which it then sells to an individual, the value of the tires is not counted specifically since it is already included in the selling price of the automobile. If, however, the consumer buys tires directly from B, the value of tires is included explicitly. If Firm A does not sell the automobile during the period, the tires will be included in valuation of its inventories of automobiles.

The second stage in the development of the present accounting framework was, briefly, to divide the economy into four main parts or sectors: persons (consumers), business, government and non-residents (rest of the world). The motivation and behaviour of these sectors are substantially different.

A separate revenue and expenditure account has been constructed for each of these sectors. In addition to the separate accounts for the sectors, two accounts were constructed for all sectors combined, that is, the economy as a whole, viz., an investment income appropriation account and a national saving and investment account. Each expenditure item shown in each of these accounts is matched elsewhere in the system by a corresponding revenue item, cross-referenced for ease of identification.

Gross National Product (and National Income), and Gross National Expenditure can be obtained by re-arrangement of items in the sector accounts so that the main table constitutes in effect a seventh account which consolidates the transactions of the six accounts enumerated.

The Accounts of the various sectors are now briefly described. The **personal income and expenditure account** summarizes the source and disposition of current income of individuals and private non-commercial institutions, such as charitable organizations and hospitals. Like households, these non-commercial institutions do not operate for profit. Private pension funds are also included in this sector.

Since personal income measures all income received by Canadian residents, irrespective of whether it is earned, it includes transfer payments such as family allowances and unemployment insurance benefits; on the other hand, it excludes current earnings not paid out to persons, such as undistributed profits and profits of government enterprises. In the case of farm operators and other unincorporated businesses, however, the whole net income is included in personal income since it is not statistically feasible to separate withdrawals for personal use from amounts retained in the business.

The **personal account** indicates the composition of personal income, and shows how much of this income is used to pay direct taxes, how much is spent on consumer goods and services, and how much is saved. It may be noted, incidentally, that the frequently-used aggregate, **disposable income**—which measures consumer purchasing power derived from current income—can be obtained from this account simply by subtracting direct taxes from the total of personal income.

The **business operating account** summarizes the transactions of business enterprise as a whole. Purchases by one business from another are eliminated except for purchases on capital account (gross domestic investment). Broadly speaking, all economic units selling goods and services on a profit basis are included under the category of business—incorporated and unincorporated private business, farms, landlords, self-employed professionals and

government business enterprises such as the Canadian National Railways. As already intimated above, home-owners are regarded as landlords who rent to themselves and are therefore included as business enterprisers. The business operating account includes only operating revenues and expenditures and, consequently, investment income received from the other sectors is excluded.

Transactions of federal, provincial and municipal governments relating to the Gross National Product and Expenditure are summarized in an account called **government revenue and expenditure account**. The conventional government accounting statements of fiscal year revenue and expenditure are adjusted to produce items on the revenue and expenditure side respectively which are consistent with the overall system of accounts.

The **non-residents revenue and expenditure account** summarizes transactions between Canadian residents and the rest of the world. The figures used are those published by the Balance of Payments Section of the Bureau, with some modification and re-arrangement. Since this is the account of non-residents with Canadian business, persons, and governments, Canadian imports appear as a revenue and Canadian exports as an expenditure.

The **investment income appropriation account** summarizes the sources and disposition of investment income. It serves the important function of assembling all elements of investment income in one place and, in addition, if facilitates carrying out completely the double-entry system embodied in the Accounts.

The **national saving and investment account** assembles the elements of the nation's saving and indicates the manner in which they are absorbed by gross domestic investment in new construction, new machinery and equipment, and inventories, and by net investment abroad.

A word may be said about the special advantages of this system. First, the system of accounts brings to light important information on the functioning of the economy. While the sector accounts bring together, in a different context, some data which already appear in the main tables of Gross National Product and Expenditure, they show, in addition, a great deal of information which does not appear in the main totals. Each sector table has its own specific uses, but its value is greatly enhanced by the fact that the different transactions appear in a clear relationship to each other. The likely effect on other parts of the economy of changes in any one component can be more easily appraised with the help of this system. Thus, a vital principle of economics, the inter-relatedness of economic variables to each other and to the whole, is effectively driven home. When wage levels change, what is the probable effect on economic activity? With a set of sector accounts to guide him the administrator is more likely to make a balanced judgment in answering this question, for he will see wages as a cost in the business account, thus affecting profits and production. At the same time, he will see wages

as income in the personal account, and therefore affecting consumption. He will also see consumption as revenue of business and hence affecting, in turn, profits and production. What is the role of government transactions in the economy? In what sense are saving and investment equal? The answers to these and other questions can be brought out more clearly and simply with the aid of this accounting system.

Judgments and estimates of the future, implicit or explicit, are inevitable when decisions of policy are being made. The system of Accounts presented here can be of great help in appraising probable employment and production trends in the future. Of course, in such analysis other data—socio-political and economic—must be taken into account. The possibility that past relationships may not hold in the future must be examined, and allowance must be made for the impact of special circumstances.

Secondly, this system of accounts brings the general economic magnitudes into quantitative perspective. For example, the importance of wages and salaries as an element of personal income is clearly revealed in the personal account. Problems relating to taxation and social security can be analyzed not only within the framework of the National Income and Expenditure, but also against the background of the government's total revenue and expenditure.

Thirdly, the system provides important technical advantages which need not be elaborated here. Suffice it to say, that it facilitates study of the statistical estimates for internal consistency and constitutes a powerful guide for setting up priorities in statistical collection.

This summary has been deliberately brief and has avoided detailed discussion of conceptual issues. There are, however, four types of problems which must be reviewed for a complete understanding of the accounting framework. These are: (a) treatment of private non-commercial institutions; (b) treatment of government; (c) treatment of certain financial intermediaries; and (d) transfer payments.

(a) **Private Non-Commercial Institutions.** Non-commercial institutions are defined as institutions whose service charges are not calculated or expected to cover expenses, e.g., many hospitals, universities, charitable institutions. Measurement of their contribution to the national output presents a special problem, since it cannot be valued by conventional procedures.

The revenue of non-commercial institutions consists of fees, of gifts from government, business and individuals, and of investment income. The value of their services cannot be taken as equivalent to the fees received, as in the case of an ordinary business enterprise, since these do not usually cover expenses and, in fact, are not designed to do so. Nor is it logical to assume that the value of their services is equivalent to the total of fees and gifts received, since the amount of gifts do not correspond in any sense to services received by the donor or by the community as a whole.

The solution is to measure the services provided by non-commercial institutions by their operating expenses. This is tantamount to regarding them as an "association of individuals"; expenses are treated as elements of personal expenditure on goods and services—balanced in Gross National Product by the factor and other costs to which these expenses give rise. Their investment income is included with personal investment income in the Gross National Product, and balanced in Gross National Expenditure at market prices, which includes business costs for the use of capital. Gifts from governments and from business are included with transfer payments to persons. Thus, the saving of these institutions is in effect consolidated with personal saving.

- (b) **Treatment of Governments.** Governments, excluding government business enterprise, are really a special case of non-commercial institutions. Government services cannot be measured by selling prices since governments, in general, render services to the community, without specific charge; taxes are an unrealistic approximation of the value of these services. Therefore, the value of government services is measured by the expenses incurred in rendering them. Thus, all government expenditure incurred in the provision of services, both to business and to persons, for which no specific charge is made, is included in Gross National Expenditure; the corresponding factor and other costs are included in Gross National Product. On the other hand, where specific fees charged for government services are already included in consumer expenditure (for example fees to government operated hospitals), or in the prices of goods and services sold by business (for example, grain inspection and weighing fees) they are deducted from government expenditure on goods and services to avoid double-counting.

The transactions of government business enterprises, which conduct operations essentially commercial in character, are recognized as being more closely allied, in point of behaviour, to the business sector of the economy, rather than the government sector. The distinction between government non-commercial and government business enterprise is not always clear-cut, but for the most part reasonable classification can be made on the basis of the following criteria:

- (a) Does the agency operate on a self-sustaining profit and loss basis, setting a price for its services, which is calculated to cover cost, and
- (b) Does the agency maintain an independent accounting system which permits the application of specific elements of cost against specific items of revenue.

The services of government business enterprises are included in the accounting of national expenditure valued at market prices; their profits are included with investment income; and their capital outlays with gross domestic investment. All their transactions are consolidated with private business in the business operating account.

- (c) **Treatment of Financial Intermediaries.** The treatment of financial intermediaries in the National Accounts presents difficulties which call for special statistical procedures. The two main types of institutions involved are the chartered banks and life insurance companies. Each of these institutions is treated in a different manner.

(1) Chartered Banks

The usual way of measuring income originating in an industry is by adding together all payments made by the industry for factor use—wages, salaries, interest, rents and profits before taxes, and, subtracting interest and dividends received. The latter are subtracted in order to get a measure of net factor use. It was noted, however, that when this procedure was applied to the banking industry the resulting figure of income originating was usually very small or negative. This fact suggested that the conventional procedure of estimating income originating in an industry is not applicable to institutions such as banks.

If some of the payments for factor use by an industry are made, not in the form of a money payment, but in the form of a service without specific charge, then the usual procedure of calculating income originating in the industry results in underestimation by an amount equal to the value of this service. Banks fall into this class of industry—that is, part of their disbursements of interest to depositors for use of the factor "capital" is made in the form of services to depositors without specific charge, and this amount does not appear in the figure of income originating in banking unless specifically imputed. Accordingly, imputations have been made in order to account for the value of these services without specific charge in total output and in the industrial distribution of National Income¹.

(2) Life Insurance Companies

Unlike most manufacturing and service enterprises, the receipts and payments of life insurance companies are not to be identified with sales and costs respectively. Their services are rendered largely to persons and are not usually exchanged for a specific and identifiable fee. The value of these services must, in consequence, be made the subject of special procedures.

Life insurance companies are therefore treated as though they were associations of individual policy-holders employing a staff to manage the affairs of the business on their behalf. Thus, interest and other investment income accruing on behalf of policy-holders is included in Personal Income as though it were actually received by persons. The administrative expenses are included as elements of personal expenditure on consumer goods and services (as a

1. For detailed discussion, see "Measurement of National Income and Construction of Social Accounts", United Nations, Geneva, 1947, page 66, "National Income, 1951 Edition, Supplement to the Survey of Current Business", United States Department of Commerce, 1951, page 40, and Studies in Income and Wealth, Volume X, National Bureau of Economic Research, pages 23-50.

measure of the life insurance service to individuals). Premiums and claims are disregarded, as are all other inter-personal transfers within the personal sector. This procedure, in effect, consolidates life insurance saving with total personal saving, and is similar to the treatment of private non-commercial institutions.

- (d) **Transfer Payments.** Transfer payments are defined as unilateral payments for which no service is rendered. Since they do not represent utilization of economic resources they are not included in the consolidated accounting of total output. They constitute a transfer from one sector to another of income arising in production. In the main, transfer payments are payments made by governments to persons in the form of various social security benefits, and as interest. A certain amount, however, is made by business to persons (including non-commercial institutions) either explicitly in the form of charitable donations, or implicitly in the form of uncollected bad debts. Inter-personal transfer payments, e.g., gifts, cancel out in the personal account.

Special consideration is given to interest on the public debt. The greater part of interest on the public debt is really a transfer payment, and is therefore excluded from the measurement of total output; most of it has been incurred to finance wars

and direct relief, and is not supported by publicly-owned assets which render services to the community. However, a portion of the public debt has been incurred to finance productive assets. Interest on this portion of the debt is included in the present estimates of Gross National Product and Expenditure. The statistical basis on which the estimate rests is weak and since the present treatment can be questioned on conceptual grounds, inclusion of this item in its present form will be reconsidered.

Interest on consumer debt is analogous to interest on public debt not incurred to finance real assets. All consumer outlay is treated as current consumption, except outlay on housing which is regarded as capital expenditure. Noting this single exception, since consumer goods cannot give rise to investment income, it is necessary to exclude interest on the debt which finances such goods (as a transfer from persons to business). The administrative expenses which are incurred in rendering services to borrowers are, however, included in personal expenditure. This treatment does not, of course, apply to the financing of business purchases of consumer goods; such interest charges are included in Gross National Product, and through market prices, in Gross National Expenditure.

We now turn to the review of sources and methods.

SOURCES AND METHODS

The general plan of this review is to introduce each component with a brief summary of its content and a classification of procedures employed sug-

gestive of reliability of the results. This is followed by more detailed descriptions of sources and methods.

GROSS NATIONAL PRODUCT AT MARKET PRICES

1. Wages, Salaries and Supplementary Labour Income.

The estimates of wages, salaries, and supplementary labour income are prepared in the Labour and Prices Division of the Dominion Bureau of Statistics. The outline of methods and sources which follows is based on unpublished reference material prepared in that Division.

Estimates of labour income are designed to include all compensation to Canadian wage-earners and salaried employees. They do not include the earnings of self-employed individuals or partners, the income of independent professionals, the net income of farmers, or payments to members of the armed services. Wages and salaries are estimated on a "gross" basis—that is, they are reckoned before tax deductions, contributions of employees to unemployment insurance, pensions and other social security schemes. Bonuses, commissions, and retroactive wage increases are included in the year in which they are paid.

Supplementary labour income consists of other expenditures by employers on labour account that can be regarded as payment for employees' services. Included here are living allowances, income in kind (e.g. board and lodging), employers' contributions to pension funds, employee welfare funds, unemployment insurance, and workmen's compensation¹.

The general method of estimation consists in calculating the payments made on labour account by the various industrial groups, and summing the results. In recent years, by far the greater portion of the estimate is based on census of industry tabulations of aggregate payrolls, annual surveys, and the published statements of governments and business. However, in areas where such coverage is incomplete, as in the case of industrial groups consisting mainly of small establishments, the problems of estimation are more difficult, and greater reliance must be placed on directly related data. Where this occurs, use is made of interpolation techniques based on benchmark material from the decennial censuses of population, agriculture and merchandising and services, and indexes of aggregate earnings, employment, and wage rates. Wage rate indexes are obtained from the Department of Labour. In a number of cases, methods of estimation

1. Excludes that portion of employers' contributions estimated to be for medical aid and hospitalization, which is not regarded as a form of employee income.

have had to be devised from indirect evidence, but such instances are few and, in the aggregate, quite small.

A qualitative analysis of the figures reveals that in the year 1949, approximately 70 per cent of the total labour income estimate was taken directly from annual surveys and published statements; 28 per cent was projected on directly related data, and 2 per cent only was estimated indirectly. However, for the earlier years the proportion which rests upon direct annual surveys is smaller. For projection purposes, more adequate time series are available for the later years, particularly after 1941 when monthly indexes of aggregate earnings became possible as a result of continuing surveys for a wide range of industries. Consequently, a lesser degree of reliability attaches to the estimates for the earlier years.

- (a) **Industries Covered by Census of Industry, Annual Surveys, or Published Statements.** As pointed out above, the great bulk of the wage and salary estimates is taken directly from census of industry tabulations of aggregate payrolls, annual surveys, and the published statements of governments and businesses.

In **manufacturing**, coverage through census of industry surveys is comprehensive and only minor adjustments and extensions have to be made to the data. Thus, working proprietors' withdrawals, which are included in the tables tabulated by the Industry and Merchandising Division of the Bureau, are deducted, since they properly belong with net income of unincorporated business. Wages and salaries of head office personnel, not adequately covered by the census of industry until 1949, are estimated on the basis of a special survey, and added. An estimate for repair establishments not covered by the census of industry is also added, while wages and salaries paid out by gas manufacturing establishments are deducted since they are classified with public utilities.

In **forestry**, wages and salaries paid by the larger establishments are reported annually. An allowance is made to include those establishments which do not report to the Bureau, based on the ratio of estimated total production to the value of production reported by the sample of establishments. Total production is estimated by the Forestry Section of the Bureau.

Estimates of wages and salaries in **mining** are based on aggregate payrolls as reported in the annual census of industry. These figures are adjusted to exclude earnings in secondary mining industries. The latter are included in manufacturing. An estimate of salaries paid to head office employees, based on data available annually since 1946, is added.

In **transportation**, the greater part of the estimate, for the more recent years, is again based on annual surveys conducted by the Bureau. These surveys cover trucks and buses since 1941, air transport since 1938, and steam and street railways for the whole period. Trucks and buses are pro-

jected to years prior to 1941 on a combined index of truck drivers' wage-rates and employment in trucking. Air transport is projected to years prior to 1938 on an index based on number of hours flown by commercial aircraft. Water transport and taxi service are estimated by projection techniques for all years and are described in a later section.

In **communication services**, the estimates are derived as follows: wages and salaries paid in the telephone industry are based on annual surveys by the Bureau. Wages and salaries of post office employees are derived from the Public Accounts of the federal government. In private radio broadcasting, estimates are made on the basis of indexes applied to benchmark material from the decennial census: these estimates are discussed below.

In the **storage** industry, annual survey data are available for warehousing for the years after 1944. For prior years these estimates are projected on related series. The estimate for grain elevators is obtained by projection from census benchmark data, and is discussed in a later section.

In **public utilities**, wages and salaries paid in the light and power industry are taken from annual surveys. Wages and salaries paid in gas manufacturing establishments are based on census of industry returns. The estimate of wages and salaries in waterworks from 1942 forward is based on sample surveys conducted by the Public Finance and Transportation Division of the Bureau. For the earlier years, the estimates are carried back on the basis of the trend of total municipal wages and salaries, adjusted for the change between the 1931 and 1941 decennial censuses.

In **finance, insurance and real estate**, annual expenditures on wages and salaries by chartered banks are obtained from the Canadian Bankers' Association. Wages and salaries of other banking institutions are obtained either by correspondence or from other sections of the Bureau. For trust, loan, mortgage and insurance institutions, wages and salary payments are derived from published statements of the companies, and from the annual reports of the Dominion Superintendent of Insurance. In the miscellaneous finance group, special estimates had to be devised and these are described later.

In the **services** group, wages and salaries paid by the federal and provincial governments, including the sessional indemnities of the members of the federal and provincial legislatures, are derived from the Public Accounts. Wages and salaries paid in post office employment are not included here since they are classified with communication. Tuberculosis sanatoria and provincial mental hospitals supported from budgetary appropriations of governments are derived from the appropriate Public Accounts and are included here.

Wages and salaries paid by municipal governments, excluding municipal school corporations, are obtained from an annual sample survey conducted by the Public Finance and Transportation Division of the Bureau for the years from 1942 forward. The estimates for the earlier years are

made by projecting census benchmarks on the trend of municipal expenditures. The figures include wages and salaries for fire and police protection and other municipal service except public utilities.

Totals of teachers' salaries in municipally-operated schools are obtained from the reports of the provincial governments. In addition to teachers' salaries, estimates are included for administrative and caretakers' service and school transportation. The figures are provided by the Education Division of the Bureau.

The estimates of non-government services are computed mainly by interpolation or projection utilizing directly related data, and in some cases indirect evidence; the methods are described below:

(b) Industries Estimated on the Basis of Related Data

Wages and salaries in **agriculture** are estimated in the Agriculture Division of the Bureau. Since 1941 the estimates are constructed by projecting a benchmark estimate of wages, obtained from the 1941 agriculture census, on an index of the average farm wage bill, as reported by crop correspondents. For the period 1926-41 benchmarks obtained from the 1931 and 1941 censuses are interpolated on a combined index of hired labour force and farm wage rates.

In **fishing**, the estimates are based on earnings reported in the population censuses of 1931 and 1941. Because of the seasonal nature of the industry the income reported in the censuses is taken as applicable to the calendar years 1930 and 1940. The estimates of wages and salaries for other years are based on the trend of the "total value of fish caught and landed" as reported to the Dominion Bureau of Statistics. In **hunting and trapping**, the total wages and salaries obtained from the 1941 census are projected on an index of the value of "wild life" fur production as reported to the Bureau.

The estimates of wages and salaries in **construction** are computed by a rather complicated procedure. The 1946 figure of aggregate payrolls, as reported by the annual census of construction, is adjusted to exclude remuneration of non-wage-earners in the construction industry. This estimate is then blown up by the ratio of the labour force survey count of paid workers in private construction, to the census of construction figure of employment, similarly adjusted to exclude non-wage-earners in private construction. The resulting benchmark figure is extrapolated forward on the basis of the official index of aggregate payrolls in construction. A similar benchmark is computed for 1941 using decennial census material and census of construction data for that year. The official index of aggregate payrolls in construction is again used to interpolate between 1941 and 1946. The estimates from 1941 to 1936 are calculated by applying an index of wages and salaries of general and trade contractors (census of construction) to the 1941 benchmark. The series is carried back to 1926 by means of an index of wages and salaries in private construction obtained from the report of the Royal Commission on Dominion-Provincial Relations (to be referred to hereafter as the Rowell-Sirois Commission).

The estimates for water **transport** are based on a 1941 population census benchmark of earnings projected forward on an index of payrolls in shipping and stevedoring. For prior years, an index of aggregate payrolls is constructed by combining an index of wage rates in water transport with an index of employment in shipping and stevedoring.

Wages and salaries paid in taxi service (**transportation**) are estimated by projecting census data on indexes based on the number of registered taxis in Canada, and wage rate indexes for the period 1926-1941; on consumer expenditure on taxis for the years 1941-1947; and on payrolls in taxi service for the years since 1947.

As noted above, a special procedure is devised to estimate wages and salaries in radio broadcasting (**communication**). Total wages and salaries in the broadcasting industry for the year 1941 is obtained from the decennial census. A similar figure is obtained for 1931 by applying average earnings of radio station operators to estimated total employment in private broadcasting. From 1941 forward, the estimates are projected on the basis of an index of aggregate payrolls of the Canadian Broadcasting Corporation. An index of numbers of private receiving station licenses is used from 1941 to 1926.

Wages and salaries in grain elevators (**storage**) are obtained, prior to 1941, by projecting aggregate payrolls from the merchandising and services census of 1941 on the basis of a combined index of employment and wage rates in grain elevators; and subsequently on the index of payrolls in grain elevators.

In **wholesale trade**, benchmarks of total wages and salaries are established from the 1930 and 1941 censuses of merchandising and services. From 1941 forward, the total is projected on the official index of payrolls in wholesale trade. The index of wholesale sales is used to project the series from 1930 to 1940. For prior years a special index is constructed by combining employment in wholesale trade with the general average index of wage rates. An almost identical method is used to estimate the wages and salaries paid in **retail trade**.

In **miscellaneous finance**, estimates of wages and salaries are established from the decennial censuses of 1931 and 1941. From 1941 forward the benchmark is projected on the official index of aggregate payrolls in finance. For prior years an interpolating index is constructed by combining the index of employment in eight leading industries, the general average index of wage rates, and an index of the net income of stock brokers.

As noted above, estimates of wages and salaries in non-government **service** are based mainly on projection and interpolation. An exception occurs in the case of universities and private schools, where estimates are based on reports submitted to the Bureau.

The field of health services is divided, for recent years, into wages and salaries paid in hospitals and wages and salaries paid outside of hospitals. Wages and salaries paid by hospitals for acute dis-

eases are obtained, since 1942, from financial statements reported to the Bureau. For this period, the estimates of wages and salaries paid in non-government hospitals for incurables are based on totals of employed personnel multiplied by average earnings recorded in hospitals for acute diseases. Wages and salaries paid in private hospitals and non-government tuberculosis sanatoria, up to 1945, when payroll data became available, are also estimated by this method.

Wages and salaries paid to employees in health service outside of hospitals are estimated for the period since 1941 by projecting forward the 1941 census benchmark on the basis of information obtained from surveys of the medical and dental professions. For the earlier years, the 1941 census estimate of wages and salaries in all health service (both inside and outside of hospitals) is projected on the basis of specially-constructed indexes, using general employment indexes combined with general average wage rate indexes and a series of net income of doctors.

Estimates for wages and salaries in legal service are calculated, for the period 1941-1926 by projecting benchmarks obtained from the population censuses of 1931 and 1941 on an index of "net income of lawyers". The 1941 benchmark is extrapolated to current years on an index based on estimates of the number of practising lawyers and average weekly earnings in finance.

A similar procedure is employed to estimate domestic service, the earlier years being projected on a combined index of employment in hotels and restaurants, and wage rates in laundries. In hotels and restaurants, the 1941 benchmark is projected forward on an index of aggregate payrolls in this service group; for the earlier years a special index is constructed using employment data, census data and the index of wage rates in laundries.

Wages and salaries paid in laundries, cleaning and dyeing establishments are estimated as follows: benchmarks from the 1930 and 1941 censuses are extrapolated forward on an index of annual wages and salaries in power laundries as tabulated in Bureau annual reports; for the period 1926-1930 projection is based on an index combining employment and wage rates.

- (c) **Estimates Based on Indirect Evidence.** In a number of cases, estimates of wages and salaries in the non-government service group are based on scanty information. Included here are wages and salaries paid in religious service, which are calculated from census material and projected to other years on the cost-of-living index.

The estimates for other professional service, including applied science, journalism, accounting, art and music are based on benchmarks obtained from the 1931 and 1941 population censuses, interpolated on a combined index of net income of doctors, general employment and general average wage rates; and from 1941 onward on the basis of labour force and cost-of-living data. In recreational services, the estimates of wages and salaries since

1930 are based on decennial census material and projected on an index of wages and salaries in motion picture theatres; for earlier years, a combined index of wage rates and employment is used. Similarly, for business service the recent estimates are projected on an index of total payrolls in advertising agencies; for earlier years, an index of net value of production in Canada is used. Barbers, hairdressing, undertaking and other personal services are also estimated indirectly on the basis of indexes of employment and payrolls in associated industrial groups.

- (d) **Supplementary Labour Income.** The value of board and lodging received by employees is estimated separately for industries where they are important. In agriculture, census data are adjusted for intermediate years by an index of changes in employment and farm living costs. In forestry, totals of income in kind are estimated, since 1944, on the basis of annual surveys; the 1944 benchmark is projected to other years on the basis of an index combining food prices and employment in logging. In other groups, such as water transport, hospitals, religious institutions and domestic service similar techniques are employed. Income in kind consumed by farm proprietors is included with accrued net income of farm operators from farm production. Food and clothing supplied to the armed forces are included under military pay and allowances.

Employers' contributions to pensions, social insurance and welfare funds on behalf of employees are also estimated separately by industry. The estimates in manufacturing, electric power, trade, mining and telephones are based on a survey made in 1944 and projected to other years on the trend of total wages and salaries of each industry. In steam railways, insurance, banking and federal and provincial governments the estimates of employer contributions are made available through correspondence, by annual surveys, or from the publications of the agencies concerned. For municipal government, estimates are derived, for the years 1938-1944, from an analysis of the financial statements of a number of larger cities; the estimates for earlier years are based on extrapolation. Since 1945 estimates are based on questionnaires collected by the Bureau in the years 1945 and 1946 covering twenty-eight municipalities. It should be noted that pensions paid by employers who had no funds set aside for that particular purpose and to which employees do not contribute, are also included as supplementary labour income. Payments under government social security schemes to which no contributions are made by employers or employees are regarded as transfer payments and excluded here.

Employer contributions to unemployment insurance are obtained from data supplied by the Unemployment Insurance Commission. Employer contributions to workmen's compensation funds are obtained from the reports of the Workmen's Compensation Boards in each province. An adjustment is made in the latter case to exclude a portion of employer contributions to workmen's compensation which is estimated to be for medical aid and hospitalization; this portion is not regarded as a form of employee income.

2. Military Pay and Allowances

Payments to members of the armed forces in Canada and overseas are treated as compensation for services rendered. Under this heading are included military pay, dependents' and subsistence allowances, clothing allowances, and the rehabilitation grant, i.e. the thirty days extra pay and one month's extra dependents' allowance upon discharge. The rehabilitation grant is analogous to the discharge pay granted by some firms. War service gratuities and all post-discharge re-establishment benefits are excluded as transfer payments. The estimated value of food and clothing issues "in kind" are included.

The estimates of cash pay and allowances for the years 1938-1950 are on a calendar year basis and are supplied by the Department of National Defence. The estimates for the years 1926-1937 are by fiscal year ending nearest December 31 of the calendar year, and are taken from the Public Accounts of the federal government.

Income in kind is calculated by applying average military strengths of the three armed services to estimates of man-year costs for food and clothing.

3. Investment Income

Investment income represents the return on invested capital (including land) owned by Canadian residents¹. It consists primarily of corporation profits, interest, net rents, and profits of government business enterprises. The sum of these items measures the earnings of the factor of production "capital" in the same way that wages and salaries and military pay and allowances measure the earnings of the factor of production "labour". The two concepts are similar in that the estimates are taken before deduction of direct taxes and include earnings of Canadian factors only, irrespective of geographical location.

The methods employed in estimating investment income are to a large extent governed by the nature of available statistics; four main classes of estimates may be distinguished. First, consolidation of individual accounts; second, projection of benchmark data; third, estimates obtained by residual methods such as the synthetic operating account (gross revenue less operating expenses); and fourth, estimates obtained indirectly on the basis of ratios. The use of these methods is brought out more fully in the following sections:

- (a) Corporation profits before tax (excluding dividends paid to non-residents)
- (b) Interest and net rental income of persons
- (c) Government investment income
- (d) Adjustments

(a) Corporation Profits Before Tax. The concept "profits before tax" used in the National Accounts differs somewhat from the one employed by the

Department of National Revenue for taxation purposes. Adjustments are therefore made to the figures reported to the Department of National Revenue in order to bring them into line with the definitions required for the National Accounts. Thus, depletion charges, which are deductible for income tax purposes, are added back; since discoveries of new natural resources are not capitalized and are, therefore, not counted as part of domestic investment and profits, the exhaustion of natural resources should not be regarded as a charge against the National Income. Charitable contributions made by corporations, also deductible as an expense under income tax regulations, are added on the grounds, that they are not a direct cost of production, but merely a distribution of earnings. Theoretically, profits relating to foreign-owned assets in Canada should be deducted, since they do not represent earnings of Canadian factors of production. In practice, it has been found impossible to separate profits as between non-Canadian and Canadian shareholders, so that only dividends paid to non-residents out of these profits are deducted. Corporate losses are also deducted in order to bring the figures to a net basis, and an adjustment is made to eliminate profits which have been refunded to the government through renegotiation of war contracts. It should be noted that under Canadian income tax regulations, taxable profits, calculated before payment of dividends, do not include dividends received from Canadian corporations. No special allowance need therefore be made to eliminate Canadian inter-corporate dividends.

The profit series are based on two main sources of statistics. First, the Department of National Revenue publishes an annual report which contains consolidations of corporate profit and loss statements prepared for taxation purposes. This series begins with the year 1944. The second source of information, used to estimate profits from 1926 to 1944, is a special sample study of corporate taxation returns, discussed at the end of this review (see page 115). Disregarding sampling errors, the results of this study are also, in effect, a consolidation of the profit and loss experience of the corporate sector.

The publication "Taxation Statistics" is also the source for the estimates of charitable donations and depletion for the period beginning with 1944. Depletion charges had to be adjusted for under-coverage, since certain firms are excluded in the detailed tabulations of income and charges by the Department of National Revenue. The adjustment is made on the basis of total profits in a particular industry to profits of firms included in the Department's detailed tabulations.

Further, an adjustment had to be made to obtain totals for calendar years, since the data from "Taxation Statistics" are on a taxation year basis.

For the years 1926-1944, depletion charges are obtained from the sample corporation study. The method of estimation of the sample figures produces totals on a calendar year basis and no further adjustment is therefore necessary to either the profits

1. Capital gains and losses are excluded.

or depletion estimates. Charitable contributions made by corporations for the years 1926-1944 are projected on the trend of corporation profits.

Estimates of profits refunded to the government on renegotiation of war contracts are supplied by the Department of National Revenue. Dividends paid abroad are supplied by the Balance of Payments Section of the Dominion Bureau of Statistics.

(b) Interest and Net Rental Income of Persons. This component is made up of the following items:

- (i) Canadian bond, mortgage, and deposit interest received by, or accruing to, persons,
- (ii) Net rents received by, or accruing to, persons,
- (iii) Interest and dividends received by persons from non-residents, and
- (iv) Miscellaneous investment income.

In the main table of Gross National Product, the grand total only of investment income is shown. In the sector tables, however, interest and net rental income of persons, together with dividends received by resident persons, appears as a separate aggregate.

It should be noted that this section includes only interest and net rents received by, or accruing on behalf of, persons (defined to include individuals, non-commercial institutions, estates, and trust funds); investment income of life insurance companies accruing on behalf of Canadian policy-holders, together with small amounts of miscellaneous income, are also included under the present heading. On the other hand, interest and net rents paid to corporations and government business enterprises are automatically included in the profits of these institutions and are not counted here. Similarly, income in these categories accruing on owner-used capital e.g. owner-occupied premises of businesses, is implicitly included in the figures of profits and net income; interest paid to government, other than government enterprises, is included under the next heading "Government Investment Income".

- (i) Canadian Bond, Mortgage, and Deposit Interest.** An estimate of Canadian bond interest received by persons for the year 1937 is used as a benchmark and projected back to 1926 and forward to 1938 on the basis of an index of total interest paid. The benchmark figure was estimated by the research staff of the Rowell-Sirois Commission; it is based on a sample of ownership certificates specially compiled for the Commission, and information obtained from the Department of Finance and the Department of National Revenue.

The projecting index is made up of interest on provincial and municipal direct and guaranteed debt, federal direct and guaranteed debt, Canadian National Railway non-guaranteed debt, and funded corporation debt, less total interest paid to non-residents. A variety of sources is used in constructing this index, including the Public Accounts of the federal and provincial governments, "The Statistical Summary of the Bank of Canada", "Comparative Statistics of Public Finance", prepared for the Dominion-Provincial Conference on Reconstruction, annual re-

ports of the Canadian National Railways, Appendix I of the report of the Rowell-Sirois Commission, and the Canada Year Book. Interest paid to non-residents is estimated by the Balance of Payments Section of the Bureau.

The estimate of interest received by individuals for the year 1938 is divided into two parts; (a) interest on federal government direct debt; and (b) interest on all other debt. The first part, dealing with interest on federal direct debt, is estimated as follows: the National War Finance Committee made an estimate of the direct funded debt of the federal government in the hands of individuals for the years 1938-1945 inclusive. Average rates of interest, also computed by the National War Finance Committee, are applied to these figures to yield an estimate of interest received by persons on federal government direct funded debt. For 1946 and subsequent years, similar information is obtained from the Bank of Canada. For the whole series, the estimated rate of interest is applied to a two-year moving average of personal holdings in order to obtain an approximation to interest earnings of persons for the year.

Interest received by persons on other than federal government direct debt for years beginning with 1938 is projected on the basis of an index similar to the one used to project the figures back to 1926, except that interest on direct federal government debt is excluded from it.

The figure of mortgage interest accruing to persons (including interest on agreements of sale) is among the least satisfactory included in investment income. However, the amount involved is, relatively, not large.

The method of estimation is: (a) to divide the field into two segments - farm and non-farm; (b) to estimate the total individual holdings in each segment and (c) to apply an average rate of interest to the latter. In order to derive average holdings throughout the year the data are converted to a two-year moving average.

The Agriculture Division of the Bureau makes estimates of total farm mortgages outstanding and total interest accruing on this debt from 1938 forward. From the former figure, holdings by business and government agencies are deducted, and the residual gives an approximation of holdings by persons. The ratio of personal farm mortgage holdings to total farm mortgage holdings is then applied to the figure of total interest accruing on mortgage debt to obtain an approximation of amounts accruing to persons.

For the years 1926 to 1937 a rather complicated procedure is used. First, total farm mortgage holdings are obtained for the years 1931, from the decennial census, and 1936, on the basis of the prairie census. Estimates of holdings of business and government agencies, derived from sources detailed below, are subtracted from this total to obtain holdings by persons. The percentage of personal holdings to total holdings in the two terminal years, 1931 and 1936, are interpolated to other years on a straight line. These percentages are then multiplied

by the ratio of (non-personal holdings) to (the percentage of non-personal holdings) to total holdings, to give an approximation of personal holdings for the period. The percentage of non-personal holdings to total debt outstanding is obtained simply by subtracting the estimated percentages of personal holdings during this period from 100 per cent.

A rate of interest, projected from 1938 to the earlier years on a straight line, is then applied to holdings of persons to obtain an approximation of interest on mortgages owned by persons.

The first step in calculating interest received by persons on non-farm mortgage holdings is to estimate holdings of non-farm mortgages by business and government agencies for the whole period. It is then assumed, on the basis of informed opinion, that these holdings constitute 55 per cent of all non-farm mortgage debt outstanding and that persons hold the remaining 45 per cent. The total amount of urban mortgage debt estimated on this basis checks approximately with an independent estimate based on information from the 1941 census of housing. Rates of interest are then applied to the amount assumed to be held by persons, based on 1941 census information and supplemented by reference to opinion of experts in the field.

The estimate of business and government holdings of farm and non-farm mortgages is derived from the following sources: "Mortgage Lending in Canada, a Factual Summary" (Central Mortgage and Housing Corporation); federal and provincial Public Accounts; the Canada Year Book; reports of: the Superintendent of Insurance for Canada, the Registrar of Loan Corporations for the Province of Ontario, the Canadian Farm Loan Board, the Central Mortgage and Housing Corporation, and railway companies; and by correspondence.

The estimates of deposit interest received by persons are prepared in the Bank of Canada. From 1943 forward, interest on deposits paid to persons by chartered banks are calculated by subtracting from total deposit interest, as reported annually by the Minister of Finance, interest paid to non-residents and to corporate bodies in Canada. Estimates for the period prior to 1943 are obtained by projection on the basis of changes in interest rates and Canadian interest bearing deposits. The figures are raised to include a valuation of banking services to persons for which there is no specific charge. The latter are also estimated by the Bank of Canada.

The deposit interest paid by loan and trust companies is estimated from annual reports of the Superintendent of Insurance and the Registrar of Loan Corporations of Ontario, and financial statements filed with the Treasurer of the Province of Quebec. The figures are adjusted upward to include deposit interest of savings banks.

- (ii) **Net Rents Received by Persons.** For convenience in making the estimates the rental field is divided into three main parts; (a) residential non-farm rents, (b) non-residential non-farm rents, and (c) residential and non-residential farm rents. Of these three classes, the first is the most important in size. It is

also the one for which statistical coverage is most satisfactory. The estimates of the other two classes of rents are based on relatively incomplete information. The estimates of the expense content of gross rents are also based on somewhat arbitrary procedures.

The method used for each class is similar: total gross rents are first estimated; amounts received by business corporations and governments are then subtracted to arrive at gross rents received by persons. Expenses are deducted from this remainder to obtain net rents received by persons. The sum of net rents received by persons for the three sectors gives the required total.

Gross residential non-farm rents are estimated by multiplying the number of non-farm dwellings by an estimated average rent figure. The number of occupied dwellings in Canada for the years 1926 to 1949 are obtained from the Central Mortgage and Housing Corporation. A special compilation was made by the Corporation showing, for each year, the total number of non-farm dwellings, broken down by owner and tenant occupancy, and by urban and rural non-farm regions. The number of dwellings in 1950 is based on estimates in the monthly publication of the Bureau "New Residential Construction".

Average rents paid are estimated from the 1941 housing census. The housing census gives data on average rents paid in 1941 for rented urban dwellings and for rented rural non-farm dwellings. An imputed value of average rents of owner-occupied dwellings is obtained by multiplying average rents of tenant-occupied dwellings by the ratio of the average number of rooms in owner-occupied dwellings to the average number of rooms in rented dwellings. This ratio allows for the fact that owner-occupied dwellings are, in general, larger than tenant-occupied dwellings.

These average rent estimates for 1941 are projected back to 1926 and forward to 1946 on the rent component of the cost-of-living index. From 1947 to 1950 they are based on average rent figures compiled by the Special Surveys Division of the Bureau. Gross residential non-farm rents are then obtained by multiplying the number of dwellings by the average rent figure for each year. This procedure is carried out separately for tenant urban, tenant rural non-farm, owner urban, and owner rural non-farm dwellings.

From this total of gross residential non-farm rents, amounts received by government agencies are subtracted. Residential rents received by corporations should also be subtracted here, but because of lack of information it is necessary to subtract them from the estimate of non-residential rents (see below). It may be noted, however, that the error resulting from this procedure in the final figure of net rent received by persons is not likely to be significant.

The items of expenses which are subtracted from gross rents to arrive at net rents are: heating costs included in paid rents, taxes, depreciation, mortgage interest, and repairs. Each of these items is described briefly:

The 1941 housing census provides data on the number of rented dwellings which had **heating costs included in rents**. This figure is extrapolated back to 1926 and forward to 1950 on a fairly arbitrary basis. Average fuel costs per dwelling are estimated by dividing the expenditure of consumers on fuel in Canada (excluding gasoline for automobiles) by the number of dwellings in Canada. Total fuel costs are then found by multiplying the number of dwellings with fuel costs included in rents by the average cost of fuel per dwelling.

Taxes payable in the year 1941 are based on the 1941 housing census. This figure is projected back to 1938 and forward to 1950 on the trend of municipal property tax collections. For the years 1926 to 1937 a special compilation of taxes prepared for the Rowell-Sirois Commission is used.

Depreciation is based upon gross rents received by persons. It is taken as being equal to 15 per cent of urban rents paid and imputed, and 20 per cent of rural non-farm rents, paid and imputed. It would be more consistent with the estimates of depreciation on business property, elsewhere included in the Accounts, to base the estimates on the cost price of dwellings, but the information necessary to carry out this procedure is not available.

The series on **repair costs** is computed by the Central Mortgage and Housing Corporation. It excludes major renovations and similar items which are included in the expenditure side of the Accounts under "gross domestic investment".

An estimate of **mortgage interest paid** in 1941 is obtained from the 1941 housing census. This estimate is projected back to 1926 and forward to 1950 on the basis of total non-farm mortgage interest.

The total of expenses enumerated above is computed as a percentage of total gross residential rents, paid and imputed, in the economy (to persons, business, and government agencies). This percentage is then applied to the figure of gross rents, paid and imputed, received by persons. The resulting estimates of expenses are subtracted from the latter to give a figure of net rents received by persons, paid and imputed.

Non-residential non-farm rents¹ received by persons are estimated as follows: first, an estimate of gross rents paid in the economy is made. Data on rents paid by corporations (exclusive of banks and insurance companies) are available for the years

1944-1949 from "Taxation Statistics", and for the years 1926-1944 from the special corporation sample study. Rents paid by insurance companies are compiled from the annual Report of the Superintendent of Insurance; and by federal and provincial governments from the various Public Accounts.

Rents paid by unincorporated business are estimated on the basis of incomplete information. Rents paid by unincorporated retail stores are based, from 1944 forward, on surveys made by the Merchandising and Services Section of the Bureau. Benchmarks available from the 1931 and the 1941 censuses are projected to other years on the trend of rents paid by corporate retail stores. For the other groups, the benchmarks of rents paid are available from special compilations derived from the census of industry, or from special surveys such as those on accountants and insurance agents. In general, projection is made on the basis of rents paid by incorporated firms in a particular industry.

From the total of rents paid, as enumerated above, rents received by government agencies and incorporated business are subtracted. Gross rents received by government are based on tabulations made from the Public Accounts. Rents received by corporations are obtained from "Taxation Statistics" and from the special corporation study. Rents received by insurance companies are available from the reports of the Superintendent of Insurance.

The expense content of gross non-farm non-residential rents is estimated on the basis of the experience of life insurance companies. The information is admittedly inadequate but at the present time no other information is available. It is again assumed that the expense content of the rents received by individuals would be in the same ratio as total expenses to total gross rents, and the estimate of net rents received by persons is calculated accordingly.

The third class of rents, **residential and non-residential farm**, are estimated in the Agriculture Division of the Bureau. Residential farm rents are based on the value of farm dwellings. A return of 5 per cent on the value of farm dwellings is considered to be a reasonable estimate of rentals accruing on owned and rented farm homes. This figure is then reduced by the amount of mortgage interest paid in order to allow for the return on capital not supplied by the owner of the dwelling.

Non-residential farm rents are based on data on rents "in kind" and in cash, from the 1921, 1931 and 1941 decennial censuses, and from the 1936 prairie census. Intercensal years are estimated by projecting census figures on the value of farm crops and land per acre. The estimate of farm rents obtained in this way includes residential, as well as non-residential paid rents; therefore, the figure of paid residential farm rents as estimated above is subtracted to avoid double counting.

1. Only paid rents are included here. Imputed rents of (iii) **Interest and Dividends Received by Persons from Non-Residents**. Estimates of interest and dividends received by persons from non-residents are supplied

by the Balance of Payments Section of the Bureau for all years.

- (iv) **Miscellaneous Investment Income.** In addition to investment income received by life insurance companies on behalf of Canadian policy-holders, this component includes several quantitatively unimportant miscellaneous categories of income. These are: investment income of fraternal and mutual benefit societies which, like life insurance companies, are treated as associations of individuals; interest on private industrial pension funds, and the federal government annuities account; and profits of co-operatives and of mutual non-life insurance companies.

Information on the investment income of **federally-registered life insurance companies**, consisting of interest, dividends and net rents is obtained from the "Report of the Superintendent of Insurance for Canada". Interest on policy loans is treated as interest on consumer debt and excluded. Investment income accruing to non-Canadian policy-holders is also excluded, on the basis of the ratio of liabilities out of Canada to total liabilities of Canadian companies. The total thus obtained is adjusted to take into account investment income of provincially-licensed companies; this estimate is obtained by applying, to the investment income of federally-registered companies, the ratio of policies in force of provincial licensees to policies in force of federally-registered companies.

Investment income of federally-registered **fraternal and mutual benefit societies** is estimated in a similar manner to, and from the same source as, that of life insurance companies, except that income accruing to foreign policy-holders is excluded on the basis of premium income. The investment income of provincially-registered societies is based on information contained in reports of provincial departments.

Investment income of **industrial pension funds** for the years 1938 and 1944 is obtained from a survey conducted by the Dominion Bureau of Statistics. The figures are small, and are carried back to 1926 and forward to 1950 on straight line projections.

Interest on the **government annuities account** is (d) taken from the Public Accounts of the federal government. Since the interest on the fund accrues to individuals, it is included here, rather than with government investment income.

Net profits of **co-operatives and of mutual non-life insurance companies** are not included elsewhere in the estimates and must be computed separately for all years. From 1944 to 1950 the net profits of co-operatives are based on information taken from "Taxation Statistics", and from tabulations of financial statements of certain agricultural co-operatives with sales over \$200,000 filed with the Department of Agriculture. From 1926 to 1944, the estimates are projected from the 1944 base on an index of sales of farm co-operatives; the latter is constructed from data published by the Department

of Agriculture and the Agriculture Division of the Bureau. Profits of mutual non-life insurance companies are based on information obtained from the "Report of the Superintendent of Insurance for Canada".

- (c) **Government Investment Income.** The item includes profits of government business enterprises, and interest on government loans and advances, and on public funds.

Profits of government business enterprises consist of profits (less losses) of those government agencies which conduct their activities on an essentially commercial basis, setting a price for their services which is calculated to cover costs. Included here are profits of the Canadian National Railways, wartime crown corporations, provincial liquor control boards, and provincial and municipal public utilities such as hydro-electric systems, telephone systems, street railways and so on. The federal Post Office Department is included here, its gross expenditures being offset against its gross revenues to arrive at an estimate of profits¹. The sources of the data are the Public Accounts of the federal and provincial governments, the "Statistical Summary of the Bank of Canada", reports of the provincial departments of municipal affairs, annual financial statements of various cities and the annual reports of a number of the agencies concerned.

Interest on government loans and advances includes interest on loans to government agencies, such as the Foreign Exchange Control Board and various public utilities, and interest on loans to foreign and domestic governments. The estimates are derived from the Public Accounts of the various governments; at the municipal level, information is obtained from the Bank of Canada. **Interest on government pension and social insurance funds**, is obtained from the Public Accounts, the reports of the Unemployment Insurance Commission, and the Provincial Workmen's Compensation Boards. At the municipal level, interest on pension funds is based on an analysis of the annual financial reports of a number of the larger Canadian cities, supplemented by survey data obtained for the years 1945 and 1946.

- (d) **Adjustments.** The categories of investment income enumerated thus far include the "transfer" portion of interest on the public debt and a small amount of interest on consumer debt. These elements of income must be excluded, by definition, from the National Income, as indicated in the review of concepts. Further, the estimates of dividends and interest paid to non-residents, which have been explicitly excluded from the totals, include a portion retained by the federal government in the form of "withholding taxes"; it is therefore necessary to add these amounts back. Finally, an inventory valuation adjustment needs to be made to the figures of corporation profits from private grain dealing.

1. This treatment is approximate only, since no allowance has been made for depreciation on postal properties.

The "transfer" portion of interest on the public debt is estimated as follows: total interest on the public debt is first obtained, at the federal and provincial levels, from the Public Accounts of the various authorities. An estimate of interest on debt used to finance productive assets is deducted. This portion is estimated, in the case of federal and provincial governments, by applying the average rate of interest on outstanding debt of the various governments to the total value of productive assets (excluding those of government business enterprises). Data regarding the value of productive assets are compiled from the Public Accounts and other government reports. In view of the fact that information on the value of government assets is very incomplete, and, moreover, is not classified in the required manner, this procedure must be considered arbitrary.

At the municipal level, a somewhat different procedure is used. Total municipal debt interest is obtained from "Comparative Statistics of Public Finance" and the "Statistical Summary of the Bank of Canada". The "transfer" portion is defined to include only interest on relief debt, and is estimated by applying an average rate of interest to total relief debt compiled from the provincial departments of municipal affairs and annual financial statements of some of the larger cities. The balance of municipal debt interest is regarded as "productive".

Interest on consumer debt is estimated by applying a rate of interest to the total amount of consumer debt outstanding (excluding policy loans). The amount of consumer credit outstanding is compiled from a variety of sources relating to automobile sales, instalment credit, finance company credit, and money lenders credit. Among these sources are the decennial census, "Financing of Motor Vehicle Sales in Canada" (DBS), "Consumer Credit Survey Covering Department, Clothing, Fur, Furniture and Jewellery Stores" (War-time Prices and Trade Board), "Retail Consumer Credit" (DBS), and reports of, the Superintendent of Insurance for Canada.

Withholding taxes on interest and dividends paid to non-residents are derived from the Public Accounts of the federal government.

The remaining adjustment is called "inventory valuation adjustment". Since Gross National Product is defined to measure the production of new goods and services at current market prices, it is conceptually desirable, in valuing inventory changes on the expenditure side of the National Accounts, to use the current value of the physical change rather than the change in the reported book values. This means that an inventory valuation adjustment must be made to the income side of the Accounts, since corporation profits and net income of unincorporated business are usually computed on the basis of changes in book values of inventories.

At the present time, this adjustment is made only for grain in commercial channels; part of the adjustment applying to the inventories of the Canadian Co-operative Wheat Producers and the Canadian Wheat Board is included with "accrued net income of farm operators from farm production",

but the remainder applies to corporation profits and is included in investment income. The exact manner of making these calculations will be discussed below in the section "Change in Business Inventories".

4. Net Income of Unincorporated Business

Net income of unincorporated business consists of the accrued net income of farm operators from farm production together with the earnings of other working proprietors from their own businesses. These earnings are accounted for separately in the National Income since they represent a mixture of labour income and investment income which cannot be segregated on anything but an arbitrary basis. To the extent that working proprietors supply their own labour, they earn salaries and wages; to the extent that they supply their own capital, they earn profits, interest and rents. These elements are inextricably mixed in the estimates of the net income field.

The methods of estimating net income can be classified broadly into four main groups: (1) the synthetic operating account method wherein estimates of gross income are obtained and brought to a net basis by subtracting expenses; (2) the ratio method wherein estimates of gross income are obtained and brought to a net basis by the application of a ratio of "net to gross income" based on survey or income tax data; (3) direct enquiry; and (4) projection from benchmark data. In a number of the industrial groups, a combination of two or more methods is required to complete the series back to 1926. To a considerable extent, information in the net income field is of a fragmentary nature, and for this reason a number of the estimates are in some degree arbitrary.

The estimates themselves can be grouped under three broad headings: (a) accrued net income of farm operators from farm production; (b) net professional income; and (c) other unincorporated non-farm income.

- (a) **Accrued Net Income of Farm Operators from Farm Production.** This is the most important single industry in the net income field. The basic estimates of "net income of farm operators from farming operations" are prepared by the Agriculture Division of the Bureau and adjusted to meet National Accounts' definitions. The basic estimates are the subject of a reference paper now in process of preparation by the Agriculture Division of the Bureau. The method of estimation employed in that Division is summarized briefly in this section.

In computing the estimates of "net income of farm operators from farming operations" the Agriculture Division constructs a synthetic operating account for the agriculture industry. Farm cash income from the sale of farm products is first calculated, by type of farm product sold. These estimates rest upon an extensive statistical coverage of the agriculture industry, and include adjustment and equalization payments to farmers by the Canadian Wheat Board. Estimates are made of the value,

at farm prices, of food and forest products grown and consumed on farms, and these, together with imputed gross rents on owner-occupied farm dwellings, constitute the value of "income in kind" received by farmers. The value of the physical change in inventories of grain and livestock held on farms is computed at year-end prices; this will be positive or negative according to whether inventory stocks have been increased or depleted. The sum of all these items constitutes gross farm income.

Farm operating expenses are then deducted from this figure. These include taxes on real estate, gross rents on farm land, labour costs, interest on farm debt, feed and seed, binder twine, repairs and depreciation, operating costs of farm machinery, fertilizer and so on. The estimates are based on a wide range of sources and methods too extensive for detailed comment here. To the net figure, after deduction of these expenses, are added government payments to farmers on Wheat Acreage Reduction account and under the Prairie Farm Assistance Act and Prairie Farm Income Plan. The resulting aggregate is called "net income of farm operators from farming operations".

For National Accounts purposes, certain adjustments are made to this figure. First, imputed rents on owner-occupied farm dwellings, and profits of agricultural enterprises organized as corporations, are deducted, since these are included in investment income. Second, payments from the government under the Prairie Farm Assistance Act and Prairie Farm Income Plan are deducted since these are regarded in the National Accounts as transfer payments, and not payments for productive service. Wheat acreage reduction payments, however, are treated as a subsidy in the National Accounts and therefore not excluded.

The third, and final, adjustment is technically the most difficult, and quantitatively the most important. It is called "adjustment on grain transactions" and is made up of two parts. The first part takes account of the undistributed earnings of the Canadian Co-operative Wheat Producers and the Canadian Wheat Board¹. This procedure results in a figure of earnings of farm operators arising from current farm production, which is the appropriate aggregate to include in Gross National Product. The second part of the adjustment allows for the fact that the earnings of these agencies are calculated on the basis of change in book values of inventories, whereas the required valuation of inventories for the National Accounts is the value of physical change (see "Investment Income" above).

- (b) **Net Professional Income.** This group includes independent professional practitioners such as doctors, dentists, nurses, lawyers and engineers. In general, the estimates for the more recent years are obtained by multiplying average net income by the number of independent practitioners. For the earlier years, the estimates are projected on related data.

1. Data obtained from annual reports of the Canadian Co-operative Wheat Producers and the Canadian Wheat Board.

Average net income of independent doctors for the years 1939, and 1944-1946, is obtained from a survey of the medical profession conducted by the National Income Section of the Bureau. For the years 1938, and 1940-1944, average net income is estimated on the basis of dentists' average gross income obtained from "Survey of Incomes in the Profession of Dentistry, 1941-1944" (National Income Section) and adjusted for expenses by the ratio of "net to gross income" obtained from the survey of the medical profession. For the years 1946-1950, average net income is obtained from "Taxation Statistics".

The number of active independent doctors in Canada is obtained, for the years 1938-1941, on the basis of the decennial censuses of 1931 and 1941; for the years 1941-1950, from annual surveys carried out by the Department of National Health and Welfare since 1946, and extrapolated to the years 1941-1945, on the trend of medical graduates from universities. The figures are adjusted to exclude salaried doctors, and doctors in the armed forces.

A similar method is used to estimate net income of independent practicing dentists, nurses, lawyers, and other professionals in the health field, for the years 1938-1950. In the case of nurses, data on average net income are obtained from an unpublished survey conducted by the National Income Section, covering the years 1941-1944, and "Taxation Statistics"; data on numbers of private duty nurses are obtained from the decennial census, surveys conducted by the Canadian Medical Procurement and Assignment Board, the publications "The Canadian Nurse" and "Information on Canadian Nurses", and the survey.

Estimates for professionals in "other health" (e.g. osteopaths, chiropractors, veterinarians), for the period 1938-1950, are made by projecting benchmark data from the 1941 census on the average net income of doctors, dentists, and nurses.

In the case of lawyers, average net income is derived from "Survey of the Legal Profession in Canada, 1946-1948" (National Income Section), and projected to 1950 and to 1938 on the trend of average net income in the medical profession, and taxation data. Numbers of lawyers are derived from the Bureau survey and from the "Census of Lawyers" conducted by the Canadian Bar Association.

Net income of engineers, architects, designers, chemists and metallurgists is extrapolated from a 1941 census benchmark, to 1945 and to 1938, on the basis of an unweighted average index of industrial production and construction activity. For the years 1946-1950, the estimates are obtained by multiplying numbers of practitioners by the average net income for the group from "Taxation Statistics".

For the years 1931-1937, the estimates for the above groups are carried back on the trend of total net income of professionals paying income tax, obtained from the Department of National Revenue; the figures are projected from 1931 to 1926 on the basis of net income of professionals obtained from the report of the Rowell-Sirois Commission.

Other professional net income, mainly in the recreational field, (e.g. musicians, and playwrights), is projected from the 1941 census benchmark on the trend of paid admission to theatres for the entire period 1926-1950.

- (c) **Other Unincorporated Non-Farm Income.** The non-farm group of other unincorporated business covers a heterogeneous range of industries. Little systematic information on net unincorporated income in these industries is available for many of the years covered by this report; for the most part, the estimates rest upon directly related material, but in a number of cases indirect information is used.

In **forestry**, reports received by the census of industry for the year 1942 and annually since 1946 are used to estimate gross revenues and expenses. Net income derived thus is projected to other years on the trend of wholesale price index for lumber.

In **fishing**, estimates are obtained by the synthetic operating account method. Gross revenue is taken to be the "value of fish caught and landed" as compiled by the Animal Products Section (Dominion Bureau of Statistics). Estimates are made for wages, depreciation, fuel, repair, and miscellaneous expenses, and these are deducted to arrive at net income. The estimate of wages paid in fishing is described in the section "Wages, Salaries and Supplementary Labour Income". Depreciation is calculated, at the rates allowed by income tax regulations, on the basis of the value of vessels, boats and other equipment, as reported in "Fisheries Statistics" (Dominion Bureau of Statistics). Repair costs are taken as an arbitrary percentage of capital value. Fuel costs are estimated for the year 1941, on the basis of a percentage of sales of tax exempt gasoline in Nova Scotia, adjusted upwards by the ratio of tonnage of power boats used in fishing in Canada to tonnage of power boats used in fishing in Nova Scotia ("Fisheries Statistics of Canada"); this estimate is then projected to other years on a composite index of gasoline prices and the tonnage of power boats employed. The estimate of miscellaneous expenses is taken as a percentage of gross revenue.

Gross income of **hunting and trapping** is taken to be the gross value of Canadian fur production as reported annually by the Agriculture Division, adjusted to eliminate sales off fur farms. Wages and salaries paid to employed guides and trappers, and an estimate of miscellaneous expenses are deducted to arrive at net income.

In **mining**, the number of proprietors of unincorporated mining establishments by type is obtained from the 1931 and 1941 decennial census. Average net income is estimated separately for prospectors and placer miners and for other mining proprietors on the basis of data compiled by the Mining, Metallurgical and Chemical Section (Dominion Bureau of Statistics). Total net income derived by this procedure is projected to other years on the basis of Canadian gold prices, in the case of prospectors and placer miners, and of non-metallic mineral prices for other mining proprietors.

Tabulations of the gross revenues of unincorporated manufacturing establishments are made from census of industry returns for the years since 1946. The estimates are brought to a net basis by applying a ratio of "net to gross" revenue obtained from "Taxation Statistics". For the years 1926-1945, the 1946 figure of the gross value of production in unincorporated industries is extrapolated on the total of gross value of production of selected industries; the 1946 ratio of "net to gross" income is applied to the gross figures back to 1926.

Net income in repair service, for the years 1946-1950, is estimated by multiplying the number of working proprietors (from the labour force survey) by an average net income equal to two-thirds of the average net income of unincorporated retail trade proprietors. For the years 1926-1946, net income in repair service is compiled from information on numbers of proprietors and average salaries obtained from the 1931 and 1941 decennial census. These benchmark figures are then adjusted to other years on the basis of related series. For garages and automobile services, an index of consumer purchases of gasoline sales is used. In blacksmithing, the projecting series is an index of farm expenditures on blacksmithing services. For tailors and dressmakers, the figures are adjusted on the trend of net income of laundries, dyeing and cleaning establishments. In photography the total of net income in "personal services" is used for extrapolation. Miscellaneous repair services are adjusted to other years on the basis of net income of laundries, dyeing and cleaning establishments. For the years 1942-1944 a further adjustment is made to the series thus obtained to bring the grand total of these estimates to the level of the series from 1946-1950 described above.

In **construction**, total net income is first obtained for the year 1946, by multiplying average income based on returns made to the Construction Section, Dominion Bureau of Statistics, by the total number of active proprietors from the labour force survey. The resulting figure is projected to 1950 on an index of the product of the number of active proprietors and average weekly earnings. The 1946 figure of average net income is carried back to 1942 on the basis of an index of wage rates in building construction, and multiplied by estimated numbers of proprietors. For years prior to 1941 estimates of net income are calculated by projecting benchmarks from the 1931 and 1941 decennial censuses on the trend of a combined index of volume and wage rates in construction.

In **unincorporated retail stores**, operating result surveys conducted by the Merchandising and Services Section for the years 1941, 1944, 1945, 1946 and 1948 provide data which are used to calculate a weighted average ratio of "net profits (before withdrawals) to net sales". Net sales are estimated, for the years 1926-1950, on the basis of benchmark data from the 1931 and 1941 decennial censuses, projected to other years on the trend of total retail sales obtained from the Merchandising and Services Section. Net income is obtained by applying the "sales to profit" ratios to these data.

Estimates of net income of **unincorporated wholesale establishments**, since 1947, are derived from "Taxation Statistics". For the years 1938-1946, a benchmark figure based on the numbers of proprietors and average earnings from the 1941 decennial census is projected on the index of wholesale sales published by the Merchandising and Services Section. For the years 1926-1937, the estimates are based on data from the report of the Rowell-Sirois Commission.

Since 1947, estimates of net income in **transportation and communication** are based primarily on statistics collected by the Public Finance and Transportation Division, adjusted to allow for full coverage by labour force survey data. In 1945, a special analysis of financial statistics collected by this Division was made to establish net income of road transport carriers. This estimate is projected to other years (1926-1937 excepted) on the basis of employment in road transport, in the case of freight and passenger carriers, and by an index of gross revenues of taxi companies, in the case of small carriers. For the years 1926-1937, benchmark estimates are obtained from decennial census data, and adjusted to other years, for small carriers, on a combined index of taxi registrations and truck drivers' wages, and, for large carriers, on a special index of employment in road transport. In water transport, a special survey by the Transportation Section provides estimates for the years 1938, 1941, 1944 and 1945. These figures are projected back to 1926 on an index of employment in shipping and stevedoring, and forward to 1950 on the trend of net income of firms reporting to the Transportation Section.

Since 1946, net income in **finance, insurance and real estate**, is derived from "Taxation Statistics", with appropriate adjustments. For other years, estimates are made separately for each industry in this group. Net income of stock and bond dealers is estimated, for 1941, from decennial census data and projected to other years on an index of the total value of shares traded on the Toronto and Montreal Stock Exchanges. An estimate of the net income of insurance and real estate agents for 1943 is based on a special survey conducted by the Merchandising and Services Section; for other years projections are made on annual information on commissions paid by fire insurance companies compiled from reports of the Superintendent of Insurance for Canada.

Service other than professional service, enumerated above, includes **personal, recreational, and business service**, and **boarding and lodging**. Estimates of net income in the personal services group are calculated by sub-groups: barbering and hair-dressing, dyeing, cleaning and pressing, laundries, undertaking, hotel and tourist camps, restaurants, cafes and taverns. In most cases, the method consists in multiplying the number of proprietors obtained from the census of population by the average net income based on the retail services census. Projections are then made on various related indexes such as the index of barbers' fees from the cost-of-living index, gross annual receipts of power, cleaning, and dyeing plants, as reported to the Merchan-

dising and Services Branch, tourist expenditures in Canada (Balance of Payments Section), and so on.

In recreational service, similar benchmark estimates are made; projection to other years is on the basis of an index of receipts (excluding taxes) of motion picture theatres.

Net income of accountants (business service) is based on an unpublished survey conducted by Merchandising and Services Section in 1944, projected to other years on the index of industrial production.

Net income from boarding and lodging is based on data from the "Family Expenditure Survey, 1947-1948", Dominion Bureau of Statistics. One-half of gross revenue in these years is allowed for expenses, and the resulting figures of net income are projected to other years on the trend of restaurant sales.

5. Indirect Taxes Less Subsidies.

Indirect taxes represent a part of the market price of goods and services which is not received by factors of production. They are, therefore, not included in the National Income, but must be added to factor costs to arrive at total costs entering into market prices. Business accounting procedures provide a guide as to whether a tax is to be regarded as direct or indirect. Thus, all taxes which are deductible as expenses from the gross revenues of business are taken as indirect. Taxes which are levied directly on net incomes, whether of individuals or corporations, are regarded as direct taxes. Theoretically, it would be desirable to separate taxes according to their ultimate incidence; if this were possible, those taxes which are shifted forward to the consumer would be treated as indirect and excluded from the National Income, while those taxes which are not shifted forward would be treated as direct taxes and included in the National Income. It will be clear that the inclusion of direct taxes in the National Income is necessary if this aggregate is not to vary with mere changes in direct tax rates. On the other hand, to include in the National Income those taxes which are shifted forward (i.e. indirect taxes), would cause the level of this aggregate to change with every change in indirect tax rates. On the basis of present knowledge, it is not possible to separate taxes according to their ultimate incidence; their separation according to the sources from which they are levied comes as close to the desired approach as is possible.

Subsidies represent amounts contributed by governments toward current costs of production. For this reason, they must be deducted from factor costs to arrive at Gross National Product at market prices.

- (a) **Indirect Taxes.** For the most part, the indirect tax figures included here are based on analyses of the Public Accounts of governments made in the National Income Section, or for presentation in the reports of various Royal Commissions. The figures represent collections of revenue and are not adjusted to an accrual basis to allow for the lag between the time the taxes enter business costs and the time the collections are remitted to the government; adequate information to permit such adjustment is not available.

- (i) **Federal Indirect Taxes.** Indirect taxes levied by the federal government consist of: (1) customs import duties; (2) excise duties and taxes; (3) taxes on corporations other than on profits (e.g. bank note circulation tax and tax on net premiums of insurance companies); (4) the business share of privileges, licenses and permits where no direct service by the government is involved; and (5) the levy against farmers under the Prairie Farm Assistance Act.

For the period 1938-1950, the data are taken from the Public Accounts of the federal government and converted to a calendar year on the basis of monthly figures published by the Comptroller of the Treasury. For the period 1926-1937, the data are obtained from the report of the Rowell-Sirois Commission and are by fiscal years ending nearest December 31 of the calendar year.

- (ii) **Provincial Indirect Taxes.** Provincial indirect taxes consist of: (1) the business share of motor vehicle licenses and permits; (2) privileges, licenses, permits and fees not involving any direct service by the government, including public domain revenues such as timber dues, stumpage fees and water leases; (3) gasoline taxes; (4) retail sales taxes including provincial taxes on liquor and tobacco; (5) real and personal property taxes; (6) taxes on corporations other than on profits; and (7) miscellaneous taxes including amusement taxes and forest fire prevention assessments.

Only the business share of motor vehicle licenses and permits are regarded as indirect taxes, the personal share being treated as direct personal taxes. It may also be noted that the liquor taxes specified here refer only to non-operating revenues of Liquor Commissions in the form of malt taxes, beer gallonage and wine taxes, brewers' taxes and retail licenses; they do not include the "net revenues from sales" of Liquor Commissions, which are treated as profits of government business enterprises.

The source of the provincial estimates for the years 1938-1950 are the Public Accounts of the various provinces. For the years 1926-1937, data are obtained from the reports of the Rowell-Sirois Commission, and "Comparative Statistics of Public Finance" (Dominion-Provincial Conference on Reconstruction), supplemented by information from the Public Accounts. All figures are by fiscal years ending nearest December 31 of the calendar year.

- (iii) **Municipal Indirect Taxes.** Municipal indirect taxes consist mainly of real property taxes. These are treated as indirect whether on owner-occupied or on rented property. Since inclusion of imputed rent on owner-occupied property in National Income involves regarding the owner-occupier in the dual role of landlord and tenant, this treatment is appropriate. Municipal indirect taxes also include sales, and amusement taxes, and the business share of licenses, permits and fees where no direct service is rendered by the government.

The sources of the municipal estimates are the reports of the Rowell-Sirois Commission, the 1946 supplement to the "Statistical Summary of the Bank of Canada", and subsequent monthly summaries published by the Bank of Canada.

- (b) **Subsidies.** The greater part of the subsidy figure consists of federal production and consumption subsidies which are made with a view to price stabilization. Such payments are usually made in order that the consumer may benefit from lower prices, but occasionally the purpose may be to protect the producer against a decline in the price of his product. Federal subsidies are divided into three main classes: (i) Agricultural subsidies, which include wheat acreage reduction payments, premiums on livestock, subsidies on milk, cheese, and butterfat, freight assistance on western feed grains for livestock feeding purposes, and subsidies on oats and barley; (ii) Business subsidies which include: import subsidies on petroleum, cotton, coal and coke; and domestic subsidies, including drawback to millers, emergency assistance to gold mines, payments under the Maritime Freight Rates Act, subsidies for milk consumption, and steamship subsidies for mail; (iii) Trading losses on operations of government commodity agencies, such as the Commodity Prices Stabilization Corporation, the Canadian Wool Board, the Agricultural Prices Support Board, the Fisheries Prices Support Board, and the Canadian Wheat Board. In the case of the Canadian Wheat Board, trading operations on any crop account may extend through several years; an increase in the trading loss is regarded as a positive subsidy while a recovery in the trading loss is regarded as a negative subsidy, equivalent in effect to an indirect tax.¹

For the period 1938-1950, the data are obtained from the Public Accounts of the federal government, from the published reports of the agencies concerned, or directly from government officials. For the most part, the figures are on a calendar year basis. For the period 1926-1937, the data are obtained from the reports of the Rowell-Sirois Commission, and are by fiscal years ending nearest December 31 of the calendar year.

Provincial subsidies are paid to agriculture in the form of freight assistance on limestone for fertilizer, western feed grains, and other products. Production subsidies are paid on wool, cheddar cheese, sugar beets, bacon, hogs, and livestock for breeding purposes. Business subsidies include payments on iron ore and peat, the operation of ferries, and the publication of text books.

The provincial figures are taken from the Public Accounts and are by fiscal years ending nearest December 31 of the calendar year.

There are no subsidies paid by municipal governments.

1. Where trading profits are earned on individual crop accounts, they are regarded as accrued net income of farm operators from farm production

6. Depreciation Allowances and Similar Business Costs

Allowances for current consumption of capital, deducted to arrive at profits and net income included in the National Income, must be added back to arrive at Gross National Product at market prices. In view of the impossibility of arriving at a figure of the true economic consumption of capital, it is necessary to use current accounting allowances for depreciation, obsolescence and amortization as a basis for the estimate, although these may vary widely from capital consumption in the economic sense. Allowance of some different amount would involve a corresponding adjustment in profits, and thus in National Income, but would not affect the total of Gross National Product. It will be seen that estimates of National Income and net capital formation based on these depreciation figures will be overstated to the extent that business accounting practices understate true capital consumption, and understated to the extent that such practices overstate true capital consumption.

In some cases, outlays essentially capital in nature are charged by business to current expenses. Capital outlays of this nature are included in the estimates of gross domestic investment in Gross National Expenditure; they must therefore be included as a component of Gross National Product to preserve the balance of the Accounts. Theoretically, such outlays should be added back to gross profits and the relevant amount of depreciation deducted; the latter should then be added to the depreciation component of Gross National Product. However, no information exists which would permit such an adjustment, except on an arbitrary basis.

The claim portion of insurance against fire and other damage to business property (including all residential property), is regarded as analogous to depreciation in that it is included in market prices but does not represent income of any factor of production, and in that it is a cost in maintenance of the national capital. It is therefore included under this heading. An estimate is also included for the claim portion of business insurance against financial loss, e.g. fidelity insurance.

Bad debt allowances (less recoveries) are also included here because they enter into the market price of goods and services in Gross National Expenditure but do not represent income of any factor of production. The figures used are the amounts charged by business as operating costs.

Depletion charges are not included with depreciation, for the reasons cited in the section, "Investment Income". Depreciation on government non-business properties is not included, in accordance with the treatment of government outlay on durable goods as current expenditure. Moreover, governments (excluding government business enterprises) do not provide for depreciation in their accounts; estimates of depreciation on such government property would therefore be wholly arbitrary.

The methods of estimating this component of the National Accounts may be divided into four basic classes: first, consolidation of individual accounts; second, projection from benchmark data on related series; third, ratio method, using directly related data; and fourth, ratio method, using indirect data. In a number of cases, a combination of methods is necessary to complete the series back to 1926. The following classification refers, in general, to the estimates for the current years.

The first method includes all estimates of corporation depreciation, the claim portion of business insurance, bad debt allowances, and depreciation of certain government business enterprises. The second method covers unincorporated manufacturing and retail trade. The third method is used for most municipal public utilities, certain unincorporated business groups, such as agriculture, fishing, construction, wholesale trade, finance, insurance and real estate, elements of the service group, and the bulk of the estimate "capital outlay charged to current expense". The fourth method covers the remainder of unincorporated business, such as transportation, communication and certain of the service industries.

(a) Depreciation, Obsolescence, and Amortization

- (i) **Incorporated Business.** For incorporated companies the basic source of the information since 1944 is "Taxation Statistics". Comparable estimates for other years are obtained from the special corporation sample study. In addition to regular depreciation and obsolescence provisions, amortization charges, including the writeoff of exploration and development costs of mining companies, are included here. (The total original exploration and development costs are included with gross domestic investment).

A number of adjustments to the basic estimates are necessary. An allowance for depreciation in banking and insurance, not included in Department of National Revenue tabulations, is made. In the case of banks, the data are obtained from published reports of the chartered banks. Insurance companies make no specific provision for depreciation, generally writing off items of equipment and furnishings as acquired; an amount equal to their capital expenditure on machinery and equipment, as included in gross domestic investment, is therefore added here. Further, some firms do not submit complete financial returns in time for inclusion in Department of National Revenue tabulations. An allowance for depreciation of these firms is therefore made by inflating the tabulated data by the ratio "profits of all firms to profits of reporting firms". Finally, the data are adjusted from the taxation year to a calendar basis using information obtained from the Department of National Revenue.

(ii) **Government Business Enterprise.** Depreciation of federal, provincial and municipal government enterprises is obtained from the Public Accounts, published reports of the various enterprises, reports of provincial departments of municipal affairs, individual municipal reports, summaries prepared by the Bank of Canada, and by correspondence. In the case of municipal governments, some recourse is made to estimation, as available information is not in all cases sufficient to complete the estimate.

(iii) **Unincorporated Business.** For unincorporated companies, estimates are obtained from a variety of sources. Figures of farm depreciation are prepared by the Agriculture Division, Dominion Bureau of Statistics, in connection with estimates of net farm income; an adjustment is made to exclude incorporated companies engaged in agriculture. In forestry, no specific allowance is made, the information in this sector being totally inadequate. The amount involved is known to be small. In fishing, estimates of depreciation are prepared in connection with the estimates of net income in this industry. No allowance is made for hunting and trapping or for unincorporated mining enterprises, the amount of capital employed not being significant.

In manufacturing, depreciation for both incorporated and unincorporated industries (excluding repair and custom) is available for a number of years from the "capital expenditures schedule" used in connection with the annual survey of intended and realized investment expenditures (General Assignments Unit, Dominion Bureau of Statistics). A special classification of returns for the year 1946 permits figures to be obtained separately for unincorporated companies. The latter are inflated to full coverage by means of a production ratio. An estimate of depreciation in repair and custom work is also added. This estimate is made as follows: a controlling ratio is devised using labour force survey data, on the assumption that depreciation in repair and custom work is in the same relation to the labour force as depreciation in manufacturing proper.

Estimates for the years 1926-1945 are obtained by extrapolation from the 1946 benchmark on the trend of depreciation in a selected group of incorporated manufacturing industries, comprising those industries where unincorporated business is largely concentrated. This information is obtained from the special corporation study. For the years 1947-1950 projection is based on a composite index of the average gross revenue per proprietor of unincorporated manufacturing firms multiplied by labour force estimates of the total number of proprietors engaged in manufacturing and repair.

In construction, a special tabulation of construction census returns for the year 1946 provides an estimate of gross value of work done in the construction industry by form of organization. The ratio of depreciation (from "Taxation Statistics") to gross revenue for incorporated concerns in the construction industry is calculated, and applied to the gross revenue estimate for "unincorporated business with paid employees" to obtain an esti-

mate of depreciation in this group. (Self-employed proprietors in the construction industry are assumed to have no depreciation expenditures; an allowance for capital outlay charged to current expense is included for this group in the final totals.) Estimates for other years are made by assuming a constant relationship between depreciation for incorporated and unincorporated companies.

In transportation and communication estimates of depreciation for unincorporated freight and passenger carriers (excluding taxis) are based on annual surveys conducted by the Public Finance and Transportation Division, Dominion Bureau of Statistics. Estimates of depreciation on taxis for 1946 are obtained by multiplying the estimated number of cabs (based on registration data) by an assumed average depreciation. The latter estimate is based on information respecting the cost of passenger automobiles and the number of years for which the cost may be amortized under income tax regulations. For years subsequent to 1946, depreciation is assumed to be a constant percentage of gross revenues of taxi companies as calculated in connection with the estimates of personal expenditure for taxi service. For the years 1926-1945 the estimates are projected on the trend of net income of this group.

In wholesale trade, information on the relative share of business done by incorporated and unincorporated firms is obtained, for the year 1941, from the census of merchandising. This benchmark is extrapolated on the trend of the reported depreciation for incorporated companies, to obtain the estimates for other years. It is thus assumed that there is correlation between sales and depreciation, and that the proportion of business done by unincorporated companies is constant.

The estimate for retail trade is obtained by multiplying estimates of total sales of unincorporated retail stores by an estimate of the ratio "depreciation to sales". The sales estimate is obtained by subtracting from total retail sales (prepared in the Merchandising and Services Section, Dominion Bureau of Statistics), estimated sales of incorporated establishments (based on "Taxation Statistics"), co-operative stores sales (based on data from the Department of Agriculture), and government liquor store sales (from provincial published reports). The ratio "depreciation to sales" is obtained regularly for a sample of unincorporated stores by the Merchandising and Services Section, Dominion Bureau of Statistics, as part of a continuing survey of retail operating expenses.

In finance, insurance and real estate, estimated depreciation on non-farm residential property is computed in connection with the estimates of net rents in investment income. Depreciation on rented commercial property, (largely in the field of retail trade and service) is computed as a percentage of gross commercial rents paid. The proportion of depreciation to gross rents is derived from an analysis of revenue and expense statements of a sample of incorporated real estate companies. The gross rent estimate is also prepared in connection with estimates of net rents in investment income. The sum

of these items is adjusted to exclude depreciation on residential and commercial property owned by corporations. This estimate is calculated as a proportion of total rents received by corporations ("Taxation Statistics"),

Depreciation in **professional service** is estimated on the basis of information respecting disappearance of professional equipment, prepared in conjunction with the estimates of gross domestic investment, and supplemented by data respecting the numbers of automobiles owned by doctors, and maximum rates of depreciation on equipment and automobiles allowed by income tax regulations.

In other service groups, including **recreational, personal and business service**, an estimate of depreciation in the year 1948 is built up from a variety of sources. In general, the method is to adjust the figures of depreciation in the incorporated service industries by a ratio of the relative proportion of business done by incorporated and unincorporated companies in the year 1941 as obtained from the census of services. This estimate is extrapolated on the trend of depreciation in incorporated service companies.

(iv) **Non-Commercial Institutions.** In the case of **universities**, information respecting depreciation charges or their equivalent is collected since 1949 by the Education Division, Dominion Bureau of Statistics. The amount is very small and no estimate is made prior to 1949. For private and religious **hospitals**, information on operating expenses including depreciation is collected regularly by the Institutions Section, Dominion Bureau of Statistics. No allowance for depreciation is made in the case of buildings and equipment owned by **religious, welfare and social organizations**. To the extent that these organizations operate on rented premises, however, depreciation on the property they occupy is included with depreciation on rented commercial property under finance, insurance and real estate.

(v) **Co-operatives.** Estimates of the value of fixed assets owned by co-operative organizations in Canada are obtained for each year from 1932 to date from the Department of Agriculture. Depreciation is calculated by applying the ratio "depreciation to fixed assets" as determined for incorporated companies engaged in similar activities. For years prior to 1932, the estimates are arbitrary.

(b) **Capital Outlay Charged to Current Expense.** This item includes furniture, furnishings, some office equipment, automobiles, tools, jigs, dies, and so on, which have been charged to current expense rather than capitalized. Various methods are employed in estimating the industry-wise components of this item; in general, however, the estimates are obtained through comparisons of "investment in machinery" as reported by business, with the apparent consumption of producers' machinery and equipment as indicated by statistics of production, imports and exports. In the case of agriculture, an estimate of the value added to farm construction by the labour of the farm operator and hired employees is included.

(c) **Claim Portion of Business and Residential Insurance** The information necessary to compute this estimate is obtained from the annual reports of the Superintendent of Insurance for Canada. An estimate of payments made by steam railways with respect to damage to property and livestock is included.

(d) **Net Bad Debt Charges.** This item consists of the amount set aside each year by business to cover anticipated losses through non-payment of accounts, adjusted for recoveries of debts formerly written off as uncollectable. The latter are included with corporation profits. For incorporated companies the information is obtained from "Taxation Statistics" and the special corporation sample study; in some cases it is necessary to project on the trend of sales of individual industries. In the case of chartered banks the series included is the amount of retained income not carried to profit and loss account, and is obtained for recent years from the annual returns of the chartered banks published in the Canada Gazette. For earlier years the amounts are estimated on the basis of information appearing in the report of the Standing Committee on Banking and Commerce (1944).

Net amounts set aside by unincorporated business engaged in retail trade are obtained by applying a ratio of "bad debts to sales" obtained from surveys conducted by the Merchandising and Services Section, to estimated annual sales of unincorporated business. No allowance has been made for bad debts in other types of unincorporated business, since information in this field is almost wholly lacking.

GROSS NATIONAL EXPENDITURE AT MARKET PRICES

1. Personal Expenditure on Consumer Goods and Services.

This component comprises personal expenditure of Canadian residents, including implied expenditure out of income in kind, on consumer goods and services. All types of consumer durable goods are included. Purchases of houses, however, are regarded as capital goods, and are shown with the estimate of gross domestic investment. The rental value of owner-occupied houses is included, as are the operating costs of non-commercial institutions (see

page 86). and all life insurance companies (see page 86). The estimate includes expenditures of Canadian residents temporarily abroad, (e.g. tourists, members of the armed forces), and excludes expenditures of foreign residents temporarily in Canada. All expenditures that are regarded as business costs are excluded.

The estimates are calculated under three broad categories: commodities, services, and net expenditures abroad.

Personal Expenditure on Commodities, 1926-1950

This estimate consists of purchases of commodities by persons, and implied expenditure out of income in kind. For the years 1941-1950, the general method of estimating purchases of commodities is to adjust the figure of total retail sales obtained from the 1941 merchandising census and annual surveys conducted by the Merchandising and Services Section, to exclude the value of non-personal purchases of commodities at retail, and to eliminate sales of second-hand merchandise not assignable to the current year's production. Receipts from repairs and services are also subtracted from the total, since they are included with personal expenditure on services. Commodities purchased by individuals through non-retail outlets are added, as well as certain provincial and local taxes which are not included in the retail sales figures. For the years 1926-1940, a somewhat different method has been used to estimate purchases of commodities. This method is described at the end of this section. The present discussion refers to the years 1941-1950.

(a) Purchases of Commodities, 1941-1950

- (i) **Total Retail Sales.** The value of retail sales is available from the census of merchandising in 1941 and annually thereafter from the Merchandising and Services Section of the Bureau. The current series do not include sales in the Yukon and North West Territories, or in Newfoundland, since 1949, and an adjustment must therefore be made to allow for them. In addition, the estimates for 1942-1946 are based on a sample of the larger continuing retail stores only (i.e. larger stores which had a continued existence through 1941-1946), so that additional adjustments are necessary in these years to correct for the effect of new entries, withdrawals, and changes in kind of business, and for the bias resulting from the omission of small stores in the sample.

Information respecting the cumulative effect of such changes in the universe since 1941 is available, in 1947 and later years, from a new comprehensive area sample. The correction for new entries, withdrawals, and changes in type of business for the years 1942-1946 is made by distributing the cumulative change between 1941 and 1947 on a somewhat arbitrary basis. To correct for the omission of small stores in the years 1941-1946 (original sample) the value of sales in 1947 is computed on the basis of the old sample, as well as on the basis of the new continuing store sample to yield an estimate of the degree of bias caused by the omission. The years 1942-1946 are adjusted for this bias on the assumption that it had accumulated uniformly since 1942. Both types of adjustment, i.e. the correction for new entries and withdrawals, and the correction for the omission of small stores (original sample) are made separately for each kind of business.

- (ii) **Non-Personal Purchases at Retail.** Non-personal purchases at retail, which are deducted from the estimate of total retail sales, are in general, estimated by commodity groups. Total retail sales of building

and construction materials are excluded on the assumption that these are business purchases and appear as the "repair cost content" in the estimates of gross paid and imputed rents, or as capital expenditure in the estimates of gross domestic investment. For 1941, the estimates are obtained from the census of merchandising and services. For later years, estimates are based on the trend of total sales by lumber and building materials dealers (Merchandising and Services Section).

Retail sales of hardware are also deducted in total since the greater part of these sales are non-personal and are assumed to be included in the estimate of gross rents or gross domestic investment. No information is available on which to base an estimate of personal content which should legitimately appear in personal expenditure. Again, the census of merchandising and services provides the 1941 benchmark figure, which is projected on the trend of sales of hardware stores (Merchandising and Services Section).

The total amount of retail sales of "office and store equipment" is also treated as non-personal. The 1941 census of merchandising and services figure is adjusted to other years on a trend of sales of chain stores handling this type of equipment. Sales of professional and scientific equipment are projected from 1941 on the trend of the apparent domestic disappearance of such equipment calculated in connection with the estimates of gross domestic investment.

Business purchases of gasoline, oil and grease are estimated, for 1941, by deducting from total sales in this commodity group, an estimate of personal consumption prepared by the former Oil Controller. For other years, the estimate is extrapolated on a composite index reflecting total retail sales in this group and the changing proportion of personal and business consumption as indicated by registrations of passenger and commercial vehicles.

Sales of new commercial vehicles and of passenger vehicles for business use are also excluded. The basic data are supplied by the Merchandising and Services Section. In the case of passenger vehicles, 20 per cent of total current sales are estimated to be for non-personal use; in the war years, 1942-1945, a considerably higher proportion was deducted.

The value of meals and beverages charged to business and government expense accounts is compiled from a variety of sources. In particular, mention may be made of the survey of manufacturer's expenses conducted in connection with the Rowell-Sirois Commission, and surveys of operating expenses of wholesale and retail chain stores conducted by the Merchandising and Services Section. Information on travel expenses of the federal government is available from the Public Accounts. Total travelling expenses for these four important groups are extrapolated to other years on the basis of pay rolls; the "meal and beverage" content of the totals is calculated to be in the same proportion as for the federal government (data supplied by Comptroller of the Treasury).

Wholesale sales by retail establishments not elsewhere specified are excluded, since these are assumed to be wholly for business purchases. The 1941 benchmark (census of merchandising and services) is extrapolated on a specially weighted index of retail sales.

Tractors, farm implements and parts are included either with farm operating expenses or in the estimates of gross domestic investment, hence they are excluded here (Merchandising and Services Section). Estimates of hay, straw, and feed are also excluded, being assumed to be wholly business costs. The 1941 benchmark figure is projected on an index of feed and seed purchases prepared by the Agriculture Division.

The cost of fuel used in heating rented dwellings when supplied by landlords is subtracted, being implicitly included in estimates of gross rents. The estimated amounts are computed in connection with the calculation of net rents in investment income.

- (iii) **Sales of Second-Hand Merchandise.** Since Gross National Expenditure measures only sales of currently produced goods and services, it is necessary, in computing estimates of personal expenditure on consumer goods and services, to exclude the transfer value of sales of second-hand merchandise from total retail sales; only the "mark-up" value of such merchandise is properly included in the figures.

Sales of used automobiles by motor vehicle dealers are estimated residually; new vehicle sales, sales of gasoline, oil, grease, parts and accessories, and service (repair) charges are deducted from total sales of motor vehicle dealers (data from Merchandising and Services Section), to give an estimate of sales of used automobiles by motor vehicle dealers. To this figure it is necessary to add sales of used automobiles by used car dealers. The latter figure is based on a special analysis of returns collected by the Merchandising and Services Section. The total figures thus obtained are subtracted from aggregate retail sales to persons. An estimate of mark-up is added back. The latter is obtained as follows: for used car dealers, a survey conducted by the Merchandising and Services Section in 1937, and the census of merchandising of 1941 indicated a mark-up of about 20 per cent. For motor vehicle dealers, the mark-up on "trade-ins" was assumed to be the same as for used car dealers for the years 1941-1946. In the years 1947-1950, a somewhat lower mark-up was used.

Sales of other used merchandise, other than war asset sales, are estimated by projection from the 1941 census of merchandising benchmark, using the general retail sales index. The mark-up is that indicated by the 1941 census of merchandising for second-hand stores, excluding used car lots. No special allowance is made for war asset sales, since an adjustment to exclude these from Gross National Expenditure is made to government expenditure on goods and services (see page 109).

Receipts from Repairs and Services. Since the estimates in this section refer wholly to commodities, repair and service receipts are deducted from the total of retail sales and included in personal expenditure on services below. The estimate consists mainly of repair and service receipts of garages and jewellery stores. It is obtained, for 1941, from the census of merchandising and services, and projected on a specially weighted index of retail sales.

- (v) **Commodities Purchased Through Non-Retail Outlets.**

A significant volume of retail sales to individuals occurs through outlets not ordinarily classified as retail stores, and these must be added to the retail sales figures as derived above. Included here are retail sales by manufacturing bakeries and dairies (from house-to-house deliveries). The data are obtained from the Manufactures Section and the Animal Products Section, Dominion Bureau of Statistics. Direct consumer sales by farmers are also added insofar as estimates can be made; no allowance is made for sales of eggs, vegetables and handicrafts, but estimates are made for sales of milk, wood fuel and Christmas trees. The estimate of milk sales is arbitrary. With respect to wood products, data are available from the 1941 census of merchandising and services, the 1941 census of agriculture, and an estimate prepared by the former Fuel Controller, and currently from the Forestry Section, Dominion Bureau of Statistics.

Refinery sales of fuel oil and kerosene to consumers are estimated, for 1941, from the census of merchandising and services, and projected on the trend of quantities sold, obtained from the Mining, Metallurgical and Chemical Section, and retail price data obtained from the Prices Section. Sales of coke and coal to consumers by wholesale firms are also based on 1941 census data, adjusted to other years on the trend of sales of coke and coal by retail establishments.

Estimates of subscription and newsboy sales of newspapers and magazines for 1941 are calculated from data prepared by the Combined Production and Resources Board ("The Impact of War on Civilian Consumption, 1945"), and the 1941 census of merchandising. Projection to other years is on the total of Canadian publishers' revenue from sales and subscriptions, combined with the value of imports of magazines and newspapers.

Consumer purchases in railway dining and buffet cars are obtained annually from the Transportation Section. Purchases of alcoholic beverages through hotels and public houses are available for 1941 and 1949 from the census of hotels conducted by the Merchandising and Services Section. Estimates for other years are obtained by interpolation on an index of wholesale sales of liquor stores and brewers' warehouses. Purchases of meals and merchandise through hotels are similarly available for the years 1941 and 1949; an index of restaurant sales is used for interpolation.

Retail sales by manufacturers not otherwise classified, are estimated, for the year 1930, from a special study carried out as part of the 1931 census of merchandising. Corresponding estimates for other years are made on the assumption that the ratio of retail sales by manufacturers to total retail sales is the same as in 1930.

Retail sales by wholesalers is obtained for the year 1941 from the census of merchandising, and projected to other years on a weighted index of retail sales. Commodity sales by service establishments such as barber shops and garages are also derived from 1941 census data and adjusted to other years on retail sales indexes.

(vi) **Provincial and Local Taxes.** In general, retail sales estimates include federal sales and excise taxes, but do not include certain types of local and provincial sales taxes. These must therefore be added to bring the estimates of retail sales to persons to a "market price" valuation. Data are obtained in connection with the estimates of indirect taxes.

(b) **Purchases of Commodities, 1926-1940.** Purchases of commodities by individuals for the years 1926-1940 are calculated by a somewhat different method. An estimate of total retail sales for the year 1930 is derived from the 1931 census of merchandising, and adjusted in the manner described for the year 1941, to exclude non-personal purchases, sales of second-hand goods and so on. Available information does not permit these adjustments to be carried out in detail for the years 1931-1940, however, and a specially constructed index of retail sales which would take account of these adjustments had to be devised for interpolation between benchmark years.

The basic estimates of total retail sales employed for this purpose are those appearing in "Inter-Censal Estimates of Retail Trade", Dominion Bureau of Statistics. To obtain a series reflecting personal expenditure on goods only, it is necessary to adjust the weights assigned to individual kinds of business in this series to conform more closely to the composition of personal expenditure as estimated for the years 1930 and 1941. In particular, the relative importance of the food group is increased to cover sales by manufacturing bakeries and dairies; an allowance is also made for sales of alcoholic beverages in hotels and public houses. The importance of the automotive group of retail sales is reduced considerably by eliminating the transfer value of used car sales and sales of all commercial vehicles. A further adjustment is necessary to reflect the increasing importance of provincial and municipal sales taxes in the latter part of the decade.

For the years 1926-1930, estimates of total retail sales are based, in general, on calculations of the domestic disappearance of consumer goods derived from statistics of production, imports and exports. This series is used to extrapolate the 1930 benchmark figure of personal expenditure on goods back to 1926.

(c) **Income in Kind, Goods, 1926-1950.** An imputation is made to personal expenditure of the value of goods consumed out of income in kind. In each case the figures included in expenditure are based on the estimates used for the income side. The item is comprised of food and fuel produce consumed on farms, food to non-farm workers and issued in kind to the armed forces.

The estimate of food and fuel consumed on farms is a part of the calculation of net farm income prepared by the Agriculture Division. It includes the estimated value of all types of home-grown produce consumed by farm families and hired help, based on average farm prices. Food received and consumed by non-agriculture workers is computed in connection with the estimates of wages, salaries and supplementary labour income. The value of lodging supplied to both farm and non-farm groups is not included here, being classified to the "services" estimate.

Estimates of food and clothing issued to the armed forces are prepared in connection with the figures of military pay and allowances.

Personal Expenditure on Services, 1926-1950

This includes the value of services rendered directly to individuals as distinct from those rendered to business or to government. For many classes of services, a preponderant proportion of total revenue is represented by sales to individuals, and the presence of business services is not an important source of error. In those classes where sales to business or government form an important part of total revenue (e.g. railway transportation, post office) data as to the amount of such sales are not always available and arbitrary allowances must be made.

For certain classes of services, the census of industry, annual surveys, or published reports of the Bureau and other agencies give information regarding personal expenditures. Other groups depend upon the 1931 and 1941 census of merchandising and services, with projections to other years being made on directly related series. In some cases, benchmark estimates are taken from census data but projections must be made on indirect evidence regarding trends. In a considerable number of cases, the estimates are explicitly articulated with calculations on the income side, and the reader is referred to the appropriate section for a description of sources and methods.

As already noted, services of private non-commercial institutions (hospitals, charitable institutions) are measured by the expenses of these institutions, rather than by the fees paid by individuals. Services of insurance companies are also measured by their expenses.

- (a) **Services Covered by Census of Industry, Annual Surveys, or Published Statements.** Annual surveys of power laundries and cleaning and dyeing establishments conducted by the Merchandising and Services Section provide data on the total revenues of these establishments. Allowances are made for revenues arising out of non-personal expenditures.

Operating expenses of automobile insurance companies are obtained directly from the reports of the Superintendent of Insurance for Canada. Bridge, tunnel and ferry tolls on international connections are obtained from the Transportation Section. Data on the passenger revenues of steam railways, electric railways and buses, air carriers, and steamships are also obtained annually from the Transportation Section. In addition, this Section of the Bureau furnishes annual data on express revenues which are adjusted arbitrarily to exclude the non-personal portion.

Revenues of central electric stations from domestic consumption are supplied by the Public Finance and Transportation Division. Data on sales of natural and manufactured gas sold to household consumers are obtained from the Industry and Merchandising Division. Personal moving expenses are obtained from information collected in the annual survey of the motor carrier and warehousing industries carried out by the Public Finance and Transportation Division.

Gross revenues of cable and telegraph companies, and receipts from personal use of telephone service, are supplied by the Public Finance and Transportation Division. An adjustment is made for non-personal expenditure on cables and telegrams. Data on post office revenues are taken from the Public Accounts of the federal government, an arbitrary allowance being made for non-personal transactions.

The estimate of services rendered to persons by hospitals is based on annual surveys of the Institutions Section. The amount included under this heading is equal to the operating expenditure of private non-commercial hospitals, plus receipts from paying patients in provincial and federal hospitals, plus revenues of private hospitals organized on a commercial basis. Operating costs of privately operated sickness and accident insurance plans are included; these are obtained from reports of the Superintendent of Insurance for Canada. Since a portion of personal medical care expenses is paid for by business under workmen's compensation schemes, a deduction is made to exclude this amount from personal expenditure. The data are based on information from reports of Workmen's Compensation Boards.

The estimate of services rendered by universities is measured by total operating costs plus estimated receipts of university residences from board and lodging¹. The information is obtained from the Education Division. The value of services

rendered by institutions engaged in life, personal property and theft insurance is also measured by their operating costs (including profits); these are available from the reports of the Superintendent of Insurance for Canada.

- (b) **Services Estimated on Basis of Directly Related Series.** A number of the service groups depend upon projection from benchmark data on the trend of directly related series. In most cases, the 1931 and 1941 censuses of merchandising and services provide the benchmark material. Thus, estimates of personal expenditure for jewellery repairs and engraving are based on the 1931 and 1941 censuses, projected on an index of jewellery store sales. Personal expenditure on automobile repair and maintenance in these two benchmark years is projected on the trend of sales of garages and filling stations. Expenditure on taxi cabs is adjusted to other years on the basis of a composite index combining gasoline prices and taxi registrations.

Funeral and burial expenses are based on receipts of funeral and undertaking establishments obtained from the census of services, 1931 and 1941, adjusted upward to allow for receipts of cemeteries and crematories. Projection is on the trend of a composite index of deaths and average wage rates.

Gross receipts of commercial recreation establishments, including motion picture theatres, billiard parlors, bowling alleys, camps and tourist grounds, are obtained from the 1941 census of services. Federal and provincial amusement taxes, from the Public Accounts, are added to this basic figure. Projection is made to other years on the trend of receipts of motion picture theatres, adjusted to include taxes.

Personal expenditure for hotel accommodation is based on data obtained, for the years 1930, 1941 and 1947, from surveys conducted by the Merchandising and Services Section. The figures are adjusted to other years on the trend of receipts of Canadian National Railway hotels.

- (c) **Estimates Based on Indirect Evidence.** In some instances, projection from reliable benchmark estimates is made on the basis of inadequate information concerning trends. Thus, census benchmark estimates of personal expenditure on shoe cleaning and repair, and barber shops and beauty parlours, are extrapolated on the trend of total retail sales. This method is also used in the case of upholstering and furniture repair, and radio and appliance repair.

1. Total operating costs do not include expenses of university residences.

In the case of the operating expenses of charitable and benevolent (private non-commercial) institutions, survey data from the Institutions Section are available for selected years. Projection is made on the basis of the cost-of-living index. Miscellaneous personal service, established for benchmark years from the census, is extrapolated on the general trend of personal expenditures on services. Personal expenditure for dressmaking is an arbitrary estimate.

(d) Estimates Explicitly Articulated with the Income Side. A number of the estimates required to compute expenditure on services have already been made in connection with the calculations of components of the Gross National Product. Some of these estimates may be used directly without adjustment, but others require modification before they can be integrated with the expenditure side. For a description of basic sources and methods, the reader is referred to previous sections of this review; only the adjustments made to the basic estimates are outlined here.

Gross farm and non-farm residential rents, paid and imputed, are calculated in connection with the rent component of investment income. Wages and salaries (including income in kind in the form of food received), of domestic servants, are calculated in connection with the estimate of wages, salaries and supplementary labour income. The estimate is used here without adjustment.

Personal expenditure for board and lodging is taken as being equal to net income from boarding and lodging, which is included in net income of agriculture and other unincorporated business. The figure is included on a net basis in this case since expenses relating to boarding and lodging are already included in personal expenditure for food, rent, fuel and so forth.

Estimates of personal expenditure for services of physicians and surgeons, dentists, nurses, lawyers, and miscellaneous health services, are all related to the estimates of net income of the professional service groups (see "Net Income of Unincorporated Business"). It is assumed that the ratios "gross to net income", established by the various surveys conducted in these professions, are constant for all non-survey years. Gross income for non-survey years is computed by applying these ratios to the estimates of net income in the various professional groups.

Personal expenditure for commercial and trade school instruction is based on calculations made for wages, salaries and supplementary labour income. It is assumed that wages and salaries represent two-thirds of the operating costs of these establishments. Gross revenues from individuals are computed on this basis. Personal expenditure on other private instruction is estimated as a constant percentage of this series, based on the relationship obtaining in 1941.

An estimate of the expenditures of religious organizations is included in personal expenditure on services as an imputation. This estimate is

based on the assumption that the wages and salaries paid (calculated in connection with wages, salaries and supplementary labour income) represent one-half of the expenditures of these organizations not included elsewhere. This estimate is then increased by 20 per cent to allow for expenditure of service groups and similar types of welfare organizations.

The value of free lodging supplied to non-agricultural workers occupying non-residential property such as bunk-houses, hotels and steamships, is added here as imputed expenditure. The calculation is made in connection with wages, salaries and supplementary labour income.

Personal expenditures for banking services, both paid and imputed, are obtained from the Bank of Canada. Imputed banking services are entered explicitly in the calculations of investment income.

Net Personal Expenditure Abroad, 1926-1950

This net adjustment is necessary to include, in personal expenditure, the expenditures of Canadian residents in foreign countries, and to exclude the expenditures of non-residents in Canada. The adjustment covers net expenditures of members of the armed forces, as well as net tourist expenditures. In addition, net private remittances to non-residents are included to correspond to the contra-entry in the balance of payments component. To the extent that gifts in kind sent abroad do not appear in retail sales (e.g. Red Cross parcels) an estimate of their value is also added.

The data are obtained from the Balance of Payments Section, Dominion Bureau of Statistics, and the Department of National Defence.

2. Government Expenditure on Goods and Services

This component consists of the outlays of federal, provincial and municipal governments (including municipal school corporations) for currently produced goods and services. The figure is essentially a residual one, derived by eliminating from government budgetary expenditures all outlays which are not made directly to purchase new goods and services — i.e. subsidies, transfer payments to individuals and private non-commercial institutions, transfers to other governments¹, losses of government-owned enterprises, provisions for debt retirement, reserves, write-downs and other bookkeeping adjustments, and purchases of land and used capital assets. The expenditure of the Post Office Department is also eliminated, since this agency is treated in the National Accounts as a government business enterprise.

1. Expenditures on goods and services financed by inter-governmental transfers are included at the level of the government which spends the funds for goods and services.

A number of adjustments are made to this residual figure: extra-budgetary expenditure on goods and services of agencies not treated as government business enterprises (e.g. War Assets Corporation, Canadian Broadcasting Corporation, Workmen's Compensation Boards) are added; sales of goods and services by governments are transferred from revenue and deducted to avoid double counting in the Gross National Expenditure (these sales are included with expenditures of the other sectors); refunds of previous years' war expenditure, arising from negotiation or cost audits, are allocated to appropriate years and deducted, in order to correct the over-statement of government budgetary expenditure which was made at that time (data obtained from Department of National Revenue and the Public Accounts); war asset sales which are reflected in other components of the Gross National Expenditure are offset, since these goods ought not to be counted in production of the current year (data obtained from War Assets Corporation); finally, net purchases of inventories of government commodity agencies are added (see footnote 2, Table 9).

It should be noted that government expenditure on goods and services includes both current expenditures, e.g. wages, salaries, and other administrative expenses, and so-called capital or "public investment" expenditures such as outlay for new buildings and highways. No distinction is made, as in the private sector, where such investment outlays would be shown under gross domestic investment. Interest on government debt incurred to finance existing real assets is also included in government expenditure on goods and services; only the "transfer" portion of this debt is excluded (see page 87).

International capital transactions of a purely financial nature, such as repatriation of securities and loans and advances abroad, are excluded from government expenditure on goods and services, since such transactions merely represent methods of providing foreign countries with the means of payment for Canadian exports, and do not in themselves measure the current economic production of Canadian factors. Insofar as the means of payment provided by these transactions are used to purchase goods and services in Canada, they are reflected in the figures of exports, and therefore in Gross National Expenditure. Cash gifts abroad are included with government expenditure on goods and services and in imports in the Canadian Balance of International Payments; they therefore cancel out in the Gross National Expenditure. (When however, the funds are used to purchase Canadian goods and services, they are reflected in exports and hence in Gross National Expenditure). Similarly, advance payments by the Canadian government to foreign governments for military procurement are included in both government expenditure and in imports. In this manner, such payments are excluded from the Gross National Expenditure (as they should be, since no Canadian production is involved).

Government expenditure on goods and services thus consists of purchases from Canadian business and non-residents; foreign aid; wages and salaries

of government employees; military pay and allowances, including that paid abroad; other military expenditures abroad; and interest on debt incurred to finance existing real assets.

At the federal level, the basic data on budgetary expenditures are obtained, for the years 1938-1950, from a detailed analysis of the Public Accounts; the figures are converted to a calendar year on the basis of monthly information obtained from the Comptroller of the Treasury. For the years 1926-1937, the data are obtained from an analysis of the Public Accounts published as an appendix to the report of the Rowell-Sirois Commission; in the latter case, the figures are by fiscal years ending nearest December 31 of the calendar year.

At the provincial level, the data are again obtained, for the years 1938-1950, by a detailed analysis of the provincial Public Accounts. For prior years, data are taken from the report of the Rowell-Sirois Commission, "Comparative Statistics of Public Finance", and supplemented by information from the Public Accounts of each province. All figures are by fiscal years ending nearest December 31 of the calendar year.

The municipal estimates are obtained from the report of the Rowell-Sirois Commission, the 1946 supplement to the "Statistical Summary of the Bank of Canada", and subsequent monthly summaries published by the Bank of Canada. In all cases, the municipal data are by calendar years.

3. Gross Domestic Investment

Gross domestic investment, as defined in the National Accounts, includes expenditures for new construction, new machinery and equipment, and changes in inventories of private and government business enterprise and private non-commercial institutions. Expenditures of persons for new housing (including major improvements and alterations) are also included, since individuals, in their capacity as home-owners, are treated as business enterprisers. Thus, this component covers gross capital formation (including changes in inventories), of the private sector of the economy and government business concerns.

Expenditures on durable assets by governments, other than government enterprise, and changes in inventories, are included with the total of government expenditure on goods and services; they are therefore excluded from gross domestic investment. On the other hand, special capital outlays by foreign governments in Canada during the war years are included with gross domestic investment, since it is difficult to classify these expenditures elsewhere in the National Accounts.

Estimates of investment in new construction and new machinery and equipment are on a "gross" basis, in the sense that no allowance for deprecia-

tion or obsolescence of existing capital facilities has been deducted. Accurate estimates of net capital formation for the economy as a whole are not possible in the light of available information.

Further, only new construction and new machinery and equipment are included; purchases of land, used buildings, and second-hand machinery and equipment are excluded since they do not represent current production of goods and services.

Replacements and major alterations are treated as investment, but ordinary repair and maintenance expenditures are not. The theoretical distinction between capital and current outlay broadly resembles that adopted for the purpose of measuring net income for income tax purposes; however, certain specified expenditures (such as office furniture and equipment and small tools) which may be treated by business as current operating expenses, are included here as "capital outlay charged to current expenses" (see reference page 103). Moreover, statistical procedures of estimating investment in durable assets do not, for the most part, refer to income tax records, so that some statistical discrepancies may exist as between the magnitudes used here and those consistent with profits and net income in the Gross National Product.

The net change during the year of business holdings of inventories must be recorded in the Gross National Expenditure in order to allow for that portion of current production which has not yet been sold (positive change in inventories), or to eliminate that portion of previous years' production which is included in sales of the current year (negative change in inventories). These changes represent net investment or disinvestment by business in inventories. With the exception of farm inventories and stocks of grain in commercial channels, all inventory changes are taken at book value.

- (a) **Gross Domestic Investment in New Construction and New Machinery and Equipment.** For current years, over-all estimates of gross private and public investment in Canada are prepared jointly by the Economics Division of the Department of Trade and Commerce and the Dominion Bureau of Statistics; the historical series back to 1926 is obtained from the background study "Private and Public Investment in Canada, 1926-1951", published by the Department of Trade and Commerce. Gross domestic investment in new construction and new machinery and equipment appearing in the National Accounts is derived from these more comprehensive estimates by eliminating the government non-business portion as defined for the National Accounts (this portion is included in government expenditure on goods and services); investment outlay in connection with the "Canol" project is also excluded since no Canadian resources were employed. Thus, the reconciliation appears as follows (see Table 41):

Total Private and Public Investment in Canada
Less Government Housing (not including Veterans'
Land Act and Central Mortgage & Housing Corporation)
Less Other Government Investment
Other Adjustments
Total Gross Domestic Investment (excluding inventories), as per National Accounts

The resulting series consists, then, of investment in durable assets by private business, government business, and non-commercial institutions, plus the wartime expenditures of the United States in connection with the Alaska highway and the Northern Staging Routes, and of the United Kingdom in connection with expansion of plant facilities, all of which drew upon Canadian production.

A detailed description of sources and methods employed to compute the over-all estimates of private and public investment is contained in the above-mentioned study "Private and Public Investment in Canada, 1926-1951". For convenience of reference, a summary of these methods is given here.

In general, information on capital expenditures of larger firms in private business has been collected by the Bureau annually since 1941 (capital expenditure survey carried out by Industry and Merchandising Division, and latterly by the General Assignments Unit). Since 1946, estimates have also been prepared on a forecast basis. This survey has gradually been extended and improved until today the coverage is quite comprehensive. Estimates of capital expenditures of unsurveyed firms are based on coverage ratios calculated on the basis of gross revenues. In some cases, gaps in the survey for the years 1941-1946 have been filled by information derived from the special corporation sample study.

Estimates of government non-business, which, as indicated above, are deducted, are obtained from published reports, including the Public Accounts, supplemented by survey data. Expenditures of institutions are based on similar sources. Expenditures on housing are obtained from "Residential Real Estate in Canada".¹ The basic data in this publication are estimated from a variety of sources including a comprehensive monthly survey of housing starts and completions, sample data on costs obtained from contractors, indexes of construction costs, and information on repairs based on material collected at census dates.

For the years 1926-1941, the available information is less complete, and in a number of cases the estimates are arrived at by applying related indexes to more recent benchmark years.

- (i) **Business Investment, Including Government Business Enterprise.** In agriculture, the estimates are obtained as follows: non-residential construction is estimated

1. Firestone, O.J., *Residential Real Estate in Canada*, (University of Toronto Press, 1951).

for 1940 as the value of materials purchased by farmers (decennial census of 1941), adjusted to allow for labour costs, and to exclude the value of residential building (estimated by the Central Mortgage and Housing Corporation). The resulting figure of non-residential construction is projected for the whole period on an index combining retail sales of building materials with net farm income. Farm investment in new machinery and equipment is built up from several sources. Since 1936, purchases of farm implements are taken from "Farm Implement and Equipment Sales", Dominion Bureau of Statistics, with an adjustment to allow for mark-up. For earlier years, estimates are based on a series reflecting "available supply", i.e. total production of farm machinery and equipment, adjusted to exclude exports and include imports. Farm purchases of commercial and motor vehicles are based on numbers on farms, obtained from the 1931 and 1941 censuses, and adjusted to other years on the trend of total sales of motor vehicles. Only 50 per cent of estimated passenger vehicle purchases by farmers is assumed to be for business use.

The value of machinery and equipment used in **fishing** is available from "Fisheries Statistics in Canada", Dominion Bureau of Statistics, for the whole period. New investment is taken to be the increment added each year to the value of equipment, after adding an allowance for the depreciation occurring between years.

In **mining**, the estimates are based since 1941 on the capital expenditure survey. For the years 1926-1940, the estimates are obtained by applying to the 1941 base the trend of capital expenditures in mining, as indicated by a Bureau survey in 1940 which covered the preceding period. The total estimate is divided between new construction and new machinery and equipment by computing the latter item from "available supply" data.

In **forestry**, the years 1941-1950 are obtained from the capital expenditure survey. Estimates for the years 1926-1940 are arrived at by applying to a 1941 base the trend indicated by the value of forest production, obtained from "Forest Production, Operations in the Woods in Canada", Dominion Bureau of Statistics. Division between construction, and machinery and equipment, is made on the basis of ratios established from the survey.

The **construction** industry is not included in the capital expenditure survey until 1947. From 1926-1946, estimates of new machinery and equipment are based on the special corporation sample study. New construction is then estimated as a constant percentage of the machinery and equipment total, based on ratios observed in more recent survey years.

In **manufacturing**, the estimates for the years 1926-1945 are based on the special corporation sample study. The data are blown up to allow for full coverage industry by industry, and the trends are applied to the 1946 benchmark obtained from the survey. For the years 1946-1950, the estimates are based on the survey.

For the **public utilities** group, a variety of sources are used for the early years. Estimates for 1941-1950 are obtained for most sub-groups from the survey. In the case of central electric stations and gas works, data for the years 1926-1940 are obtained from analysis of the statements of the more important power companies and commissions, and inflated on the basis of the ratio of total revenues of central electric stations and gas works to revenues of the sample. For steam railways, estimates for 1926-1940 are obtained from analysis of statements of the Canadian National Railways, from "Steam Railways", Dominion Bureau of Statistics, and by direct correspondence. For electric railways, all the more important companies were canvassed directly for selected years and inflated to complete coverage on the basis of revenue ratios. Intervening years are obtained by interpolation on the trend of a number of large companies for which data are available for all years. Investment in the telephone industry for the years 1926-1940 is based on the capital expenditures of the four largest private companies and all provincially-owned companies, compiled from annual reports, and blown up to complete coverage by revenue ratios ("Telephone Statistics", Dominion Bureau of Statistics).

Municipal waterworks are estimated by an analysis of financial statements, for four selected years (prior to 1944), of the larger municipalities. These data are blown up to full coverage on the basis of a ratio of capital expenditure on waterworks to total municipal capital expenditure. In 1949, a survey of all the larger municipalities was conducted, and inflated to full coverage to obtain a benchmark figure. Estimates for years not covered were obtained by straight line interpolation. Estimates for earlier years for other public utilities, including water transportation, motor carriers, grain elevators, broadcasting, air transportation and warehousing, are obtained, in general, by projection from benchmark data. Related series such as ship deliveries and imports of commercial vessels, value of construction work for grain elevators, storage capacity of grain elevators, numbers of licensed radio stations, are used to establish trends. Changes in the value of capital equipment used in the motor carrier industry ("The Motor Carrier Industry", Dominion Bureau of Statistics) and in the air transport industry ("Civil Aviation in Canada", Dominion Bureau of Statistics), are used to obtain investment in these industries. The amount of investment in oil pipe lines is significant only in recent years and is obtained by examination of company accounts.

In the **trade, finance and commercial services** groups, estimates since 1946 are obtained from the capital expenditure survey. For the years 1926-1945, the trend, computed on the basis of data from the special corporation sample, is applied to the 1946 benchmark figure established from the survey. Separation of construction from machinery and equipment is on the basis of the average ratios which obtained in 1946-1950.

- (ii) **Housing and Institutional Investment.** Estimates of housing construction are taken from "Residential Real Estate in Canada".

The investment outlays on churches, universities, municipal schools and private and public hospitals are obtained for recent years from the capital expenditure survey. For earlier years, the estimates of construction by churches are based on the value of work performed by contractors in churches and church halls ("Construction Industry in Canada", Dominion Bureau of Statistics). Equipment is calculated as a percentage of construction based on ratios from the survey. The change in value of plant and equipment used in universities ("Higher Education in Canada", Dominion Bureau of Statistics), is used to project the 1947 survey figure of construction for this group. Equipment is taken as a fixed proportion of the construction estimates.

Construction of municipal schools is estimated by a ratio method. The proportion of municipal capital expenditure on education to total municipal capital expenditure is computed for selected years from "Comparative Statistics of Public Finance", and survey data. These ratios are then applied to total municipal construction expenditures to obtain estimates for school construction. Intervening years are estimated by interpolation. New machinery and equipment are taken as a fixed proportion of the construction estimates, established from the survey years.

Construction of private hospitals is based on the trend of work done by contractors on hospital buildings ("The Construction Industry in Canada", Dominion Bureau of Statistics), applied to the 1947 survey figure. Machinery and equipment is taken as a constant ratio of the resulting series.

Construction of federal and provincial public hospitals is based on data derived from the Public Accounts. Municipal hospital construction is based on data from "Comparative Statistics of Public Finance", adjusted by ratios similar to those employed in the case of municipal schools. At all levels of government, machinery and equipment is taken as a fixed proportion of the construction figure, using the experience of the survey as a guide.

- (iii) **Government Non-Business Investment (Excluding Institutions and Housing.)** In general, the federal and provincial estimates are based on survey data in recent years and on the Public Accounts in the earlier years. At the federal level, Public Accounts data are supplemented by information on war investment expenditures supplied by the Department of Munitions and Supply.

At the municipal level, figures for selected years are built up from an analysis of the available municipal statistics, and adjusted to other years by interpolation. For the years 1942-1946, the estimates are computed by projection from a 1944 benchmark on the trend of total municipal construction expenditure as obtained from the supplements to the "Statistical Summary of the Bank of Canada". Since 1947, provincial governments have conducted surveys or prepared estimates which provide the material for the series.

Data on United States government expenditure on the Alaska Highway, the Northern Staging Routes, and "Canol" are obtained from "The Alaska Highway", a report to the United States Congress House Committee on Roads.

- (b) **Change in Business Inventories.** This component includes net investment or disinvestment in inventories by private business and government business enterprises. Investment in grain inventories by the Canadian Wheat Board is included, but investment in inventories by various government commodity agencies not organized as business enterprises¹ is excluded. The latter is shown with government expenditure on goods and services. Government net purchases of strategic materials, and the pre-financing of private inventories by the government during the war, are also included with government expenditure on goods and services, and are therefore excluded here.

In general, the method of estimation is to obtain the year-end book values of inventory holdings by industry, and to calculate the change in inventories between these year-ends. No deduction is made for inventory reserves. For inventories held on farms, and grain in commercial channels, comprehensive figures on the quantity of physical stocks are available, and the physical change in inventories is valued, in the former case, at year-end prices, and in the latter case at average annual prices², in line with the concept discussed on page 96. For all other inventories, the change in reported book values is used.

It may be noted that the estimates of net farm income prepared by the Agriculture Division of the Bureau, included on the income side of the Accounts, are calculated using the physical change in inventories valued at year-end prices; no inventory valuation adjustment is therefore necessary to this particular income component. Trading profits of the Canadian Wheat Board and of private grain dealers, however, are calculated on the basis of changes in book values, so that an inventory valuation adjustment is necessary in order to conform to the expenditure side. Theoretically, as indicated under "Investment Income", the basis of computing all inventory changes in the National Accounts should be the "current value of the physical change", and the inventory valuation adjustment should be carried out on the income side wherever profits or net income are computed on the basis of changes in book values of inventories. However, the change in book values of inventories is used in the non-farm sector, and the procedure outlined above has not yet been applied to Tables 1 and 2.

For current years, year-end holdings of inventories in the majority of industries are available through annual surveys carried out by the Industry and Merchandising Division and the Agriculture

1. These include Commodity Prices Stabilization Corporation, Canadian Wool Board, Special Products Board, Meat Board, Dairy Products Board, Agricultural Prices Support Board, and Fisheries Prices Support Board.

2. For the years 1944-1950, average initial prices to farmers are used; this procedure is being reconsidered.

Division of the Bureau. The survey data are inflated to full coverage using inventory production ratios of reporting firms. The estimates in the construction industry are based on data obtained from "Taxation Statistics". For earlier years, mainly before 1944, various sources have been drawn upon, including the special corporation study, analysis of the records and reports of the Industry and Merchandising Division of the Bureau, and projection from decennial census data. In general, before 1947, year-end holdings of inventories are reported on a fiscal year-end basis; since 1947, data are available for the manufacturing industry which permit adjustment to a calendar year. In the case of agriculture, calendar year data are available for most of the earlier years as well.

- (i) **Methods of Estimation by Industrial Group.** As noted above, the change in **farm inventories** of grain and livestock are calculated by applying year-end prices to the physical change. The quantity and price data which permit this calculation are based on annual surveys carried out by the Agriculture Division of the Bureau. In the case of livestock, most of the data are available on a calendar year basis since 1932. In the case of grain, the data for the years 1926-1946 are collected as at March 31 and adjusted to a calendar year basis; after 1946, data are available on a calendar year basis. The estimates of grain in commercial channels are discussed at the end of this section.

In **forestry**, estimates of year-end holdings since 1944 are based on census of industry returns, inflated to full coverage by applying the inventory production ratio of the reporting firms to the value of production in forestry. The latter figure is obtained from "Operations in the Woods", Dominion Bureau of Statistics, and adjusted to exclude forest production of farmers and the proportion applicable to other industrial groups. For the years 1926-1943, the 1944 benchmark figure is projected on the trend of a composite index reflecting employment in logging and wage rates.

In **mining**, estimates since 1944 are based on census of industry returns. For the years 1926-1943, estimates are based on data compiled from the records and annual reports of the Mining, Metallurgical and Chemical Section, Dominion Bureau of Statistics.

Inventory holdings in **manufacturing** are based on census of industry returns for all years from 1926-1950. The figures include the value of raw materials and goods in process, as well as finished goods. Trading inventories held in manufacturers' sales branches are excluded here, being assigned to the wholesale trade group. In the case of smelters and refineries conducting both mining and manufacturing operations, the stocks on hand are split between the two fields of activity. Private inventories financed by the government during the war are excluded on the basis of information supplied by the Department of Munitions and Supply; such inventories are included in government expenditure on goods and services.

In **construction**, estimates for the years 1926-1944 are based on information obtained from the special corporation study. Since 1945, the main source of information is "Taxation Statistics". The data are adjusted to include inventory holdings of unincorporated businesses on the basis of census data.

In the **transportation, storage and communications** group, estimates of inventories held by steam railways are compiled annually by the Transportation Section. The figures include fuel, operating supplies, and construction and maintenance materials. Estimates of inventories held by telephone companies are also obtained from the Transportation Section. For other subgroups, such as electric railways and air, water and road transportation, estimates are based on information from the Transportation Section, supplemented by data from "Taxation Statistics".

Inventory holdings of **public utilities** companies for the years 1930-1947 are estimated from annual surveys conducted by the census of industry and the Transportation Section. For the years 1926-1929, estimates are projected from 1930 on an index based on a sample of companies from the Financial Post Survey of Corporate Securities. After 1947, the collection of inventory data for public utilities was discontinued by the Bureau. Estimates are now based on information published in the "Statistical Summary of the Bank of Canada", supplemented by reports of individual companies and the provincial Public Accounts.

Inventory holdings of the **wholesale trade** group for the years 1926-1944 are based on data from the special corporation study, supplemented by decennial census material, and monthly indexes of wholesale inventories of non-durable goods, compiled by the Merchandising and Services Section. Since 1945, the estimates are based on information from the "operating cost" survey (Merchandising and Services Section), the monthly indexes of wholesale inventories, and "Taxation Statistics".

In **retail trade**, the special corporation study is used to project the 1930 census benchmark figure to 1926 and 1932. Since 1933, the estimates are built up from several basic sources, including the special corporation study, the 1941 census, the monthly index of retail inventories, "Taxation Statistics", and the "operating cost" survey.

The estimates of inventory holdings in **finance, insurance and real estate**, are based on the 1931 and 1941 decennial censuses of merchandising, adjusted to other years on the trend of wholesale and retail inventory holdings.

In the **service** group, the decennial census provides similar benchmark estimates; data from the special corporation study and "Taxation Statistics" are used to extrapolate.

- (ii) **Grain in Commercial Channels and the Inventory Valuation Adjustment.** As previously noted, the value of the physical change in inventory of grain

in commercial channels is used in the National Accounts, rather than the change in book values. The value of the physical change is obtained by multiplying the quantity change in inventories by the average price paid to producers; in the case of wheat, this calculation is computed separately for each grade involved.

Because the profits of Canadian Co-operative Wheat Producers, the Canadian Wheat Board, and private grain dealers are computed on the basis of changes in book values of inventories, an "inventory valuation adjustment" must be made to the income side to retain the statistical and theoretical balance of the accounts.

The inventory valuation adjustment for grain in commercial channels is obtained by subtracting the change in book value from the value of the physical change as computed above. The change in book value of inventories of grain in commercial channels is obtained by multiplying the physical stock at the beginning and end of each period by initial prices paid to producers, and differencing the results. In the case of wheat, the calculation is made separately for each grade.

All data necessary to the above calculations are available from "Canadian Grain Statistics" published by the Agriculture Division of the Bureau.

4. Exports Minus Imports (Net Investment or Disinvestment Abroad.)

Because a part of Canada's current production of goods and services is sold to non-residents, it is necessary to add the value of exports to arrive at a final accounting of current production through sales. Conversely, because sales to persons, governments, business on capital account and non-residents, include goods and services produced by non-residents, i.e. imports, it is necessary to subtract these in order to arrive at a correct valuation of Canadian output.

It should be noted that the terms "exports" and "imports" are used here in the broad sense and do not refer to goods and services alone; interest and dividends received from non-residents are included with the "export" series, while interest and dividends paid to non-residents are included with "import" series. It will be recalled that adjustments corresponding to these dividend and interest transactions are made to investment income on the income side of the National Accounts. In addition, gold available for export, tourist and travel expenditures of non-residents in Canada, and freight and shipping credits earned on Canadian account, are included in the "export" figure; tourist and travel expenditures of Canadians abroad and freight and shipping charges incurred by Canada on foreign account are included with the "import" series.

The figures appearing in the National Accounts are the gross credits and debits on international current account published by the Balance of Payments Section of the Bureau, adjusted to conform to

National Accounting concepts. For current years, only one adjustment is necessary to bring these figures into line with National Accounts definitions; emigrants' capital and inheritances are deducted from gross debits (imports), and immigrants' capital and inheritances are deducted from gross credits (exports). These items do not correspond to payments for goods and services, nor are they related to the current earnings of Canadian or foreign factors of production; they are treated as transfers of capital, which are not included in National Income, (although they occur with sufficient regularity to be considered as "current" transactions for Balance of Payments purposes)

In the earlier years, particularly the war years, a number of special adjustments are made to the basic data. Mutual Aid, UNRRA, and Military Relief, are subtracted from the "gross credits" figure and included under government expenditure on goods and services. Since the "exports" involved are financed by the government, this method of presentation is believed to be more appropriate. In addition, investment outlay by the United States government in Canada in connection with the Alaska Highway and the Northern Staging Routes is deducted from the "gross credits" figure since, as has been noted, these amounts are included in gross domestic investment. In the year 1947, certain credits arising from inter-allied settlement of war accounts are also excluded since they do not correspond to physical exports of goods and services during that year.

Beginning with the year 1940, Newfoundland is treated as a part of Canada in the Canadian Balance of International Payments. Since Newfoundland did not, in fact, become a part of Canada until 1949, it is necessary, for National Accounts purposes, to correct for this factor for the period before 1949. Entries reflecting Newfoundland's transactions with other countries are therefore deducted from the appropriate items in the Canadian Balance of International Payments, and entries reflecting Canada's transactions with Newfoundland are added.

The resulting balance on international current account, after allowing for these adjustments, is sometimes referred to as Canada's net investment or disinvestment abroad. A favourable (positive) balance on current account implies borrowing from Canada or Canadian "investment" abroad to finance the deficit of the foreign country; an unfavourable (negative) balance implies borrowing by Canada, or Canadian "disinvestment" abroad, to finance Canada's deficit.

For a detailed description of the sources and methods used by the Balance of Payments Section of the Bureau, reference should be made to "The Canadian Balance of International Payments, 1926 to 1948", Dominion Bureau of Statistics, 1949.

5. Residual Error of Estimate.

As has been indicated, substantially independent estimates are made for the Gross National Product and the Gross National Expenditure. Since both of these aggregates measure the value of goods and services produced by Canadians in a given year, they

should add up to the same sum. In fact, however, there is a statistical discrepancy between the two totals due to the shortcomings in available statistics. On the assumption that the "best" estimate of the common total is half way between the two in-

dependently computed totals, the statistical discrepancy is divided and one half is allocated to each of the two sides of the account under the heading of "residual error of estimate". In this manner, balance is achieved between the two sides of the account.

NOTE ON SPECIAL CORPORATION SAMPLE STUDY

Beginning with the year 1946, the Department of National Revenue publishes annually "Taxation Statistics". This publication covers both corporation data and individual data, although only the corporation statistics will be discussed here.

Information is recorded directly from corporation income tax returns as they are received by the Department. Detailed tabulations of revenues, charges, and balance sheet items are made for corporations submitting income tax returns. Only profits (taxable income) and taxes are recorded for banks and insurance companies since full information on these companies is available from other published sources. Where companies have not filed complete information by the deadline for the publication only their profits and taxes are shown. A careful check is made to ensure that all large companies are included in the figures, and it is believed that understatement of results due to omission of companies is well under one percent. The data are recorded from income tax returns before assessment.

The first year covered by "Taxation Statistics" was 1944. Financial corporation statistics for the period 1926-1944 were made the subject of a comprehensive sample study in the Department of National Revenue. The list of corporations included in "Taxation Statistics" served as the universe for purposes of selecting a sample.

The universe was divided into twenty-three industrial groups, with nine of these groups in manufacturing, eight in finance, and the other six in mining, construction, public utilities, wholesale trade, retail trade, and services. The agriculture, fishing and forestry groups were not covered since they are not significant in size relative to the other industrial groups. Banks and insurance companies were not covered in this sample, complete information on their transactions being available from published sources as indicated above.

A list was made of the corporations in each of these industrial groups, with the companies in each list being arranged in order of size of sales. The largest companies in each list were selected and included in the sample. Smaller companies were picked from the remaining companies in the list, with the chance of selection being proportional to the size of the company. By this method of selection it was possible to get efficient results with a relatively small number of firms. The completed sample covers about 1,000 companies, plus subsidiaries included in consolidated returns.

Approximately the same items were recorded for these sample companies as are tabulated in "Taxation Statistics".

An effort was made to ensure comparability of the data for the entire period. If a company filed consolidated returns for some years and not for others, all companies included in the consolidation were included for all years, so that the data are not affected by bookkeeping changes. Consolidated returns, however, brought up problems where the companies entering into the consolidation were not classified in the same industrial group. It was necessary to classify the companies in the industrial group in which the largest percentage of sales were made, and therefore some industrial groups include profits, for example, which might more properly be allocated to other groups.

Since the fiscal years of corporations may end at any time during the calendar year, it was decided to record companies on a "tabulation year" basis. That is, all companies whose fiscal years ended between July 1 of one year and June 30 of the following year were classified in the same calendar year. The purpose of this was to ensure that at least six months of a company's operations would fall into the calendar year in which it was classified. For example, a company whose fiscal year ended August 31, 1940, would have eight months of its operations in 1940, and a company whose fiscal year ended on May 31, 1941, would have seven months of its operations in 1940. Both of these companies would be classified in the year 1940. Since a majority of corporations have fiscal years ending December 31, corresponding exactly with the calendar year, the error in the results due to this method of tabulation is probably not large.

Once the sample companies had been recorded in the Department of National Revenue, the next problem was to arrive at results which would approximate the total of all corporations. This was done by comparing the sales of companies in the sample for the year 1946 with the sales of all corporations for the same year, separately for each industry group, and by groups related to the size of the company. Since large corporations in each industry were recorded completely, no adjustment was necessary for these companies. For the second largest size group it might be found, for example, that the companies covered in the sample had one-half the sales of all companies in that group. The results for this group were then multiplied by two to arrive at an approximation of the total for all companies in the group. The same procedure was carried out for other size groups, and these inflated totals for all size groups were then added together to give totals for the industry.

Once these industry totals had been obtained they were examined carefully for errors, and to assess the value of the data. The accuracy of the results obtained varied with the item recorded, and with the industry group. The primary purpose of the sample was to obtain good estimates of profits, and since the sample was specially designed for this purpose, the results for this item are considered generally good.

Items like sales, profits, and dividends paid, which are reported by a large number of companies each year, are considered to be quite accurate. An example of an item for which results are not very satisfactory is mortgage interest paid. Since only a relatively small number of corporations have mortgage debt, too few corporations reported this item to yield accurate results for industrial groups. However, estimates for all corporations combined should be fairly accurate.

For the early years, however, results are not as accurate as those for later years due to the method which had to be used to select the sample. For all groups except manufacturing, companies were picked from a list of all corporations existing in 1946. This means that companies which existed sometime during

the period 1926-1945, but were not in existence in 1946, had no opportunity of being selected, so that the estimates of the various items would be too low for these early years. Various sources of information, such as census figures of retail and wholesale sales, were used to estimate the resulting under-coverage, and to make necessary adjustments.

Fortunately, it was possible to obtain a list of manufacturing corporations in existence in 1926 and to use it in selecting the sample for manufacturing, so that this group, which accounts for more than half of the profits of all corporations, needed no adjustment.

The results of the corporation sample are used extensively in this publication. The industrial breakdown of National Income for the years 1926-1944 is based on sample figures of profits, depletion, bond interest paid and received, and other items. The analysis of corporation profits and their disposition, for the years 1926-1944, is also based on the sample. The sample has made possible the inclusion, for the first time, of estimates of bad debts, and has improved the reliability of estimates of gross domestic investment.

Section 2

NOTES ON SECTOR TABLES

Item

1. (a) Includes wages, salaries and supplementary labour income paid to resident Canadians (or those temporarily abroad) by incorporated and unincorporated private businesses, independent professionals, and government business enterprises. Wages and salaries include bonuses and commissions and are reckoned before deduction of income taxes and employee contributions to pension and social security funds. Supplementary labour income consists of employers' contributions (in cash or in kind) that are regarded as payment for employees' services, e.g. employer contributions to pensions, living allowances, etc.
- (b) Includes wages, salaries and supplementary labour income paid by government, other than government business enterprises. Wages and salaries of certain non-commercial institutions, viz. municipal hospitals and provincial universities are excluded. Wages and salaries paid by government business enterprises are included under 1(a) and salaries and wages of non-commercial institutions under 1(c).
- (c) Includes wages of domestic servants and wages and salaries paid by private non-commercial institutions. In addition, it includes wages and salaries of certain non-commercial institutions under government supervision, namely municipal hospitals and provincial universities. See item 1(b).
- (d) Employer and employee contributions to social insurance and government pension funds are earnings of persons not available to them in the year in which the contributions are made. They are, therefore, deducted in this account. The outpayments of these funds, however, are available to persons in the year in which they are made and they appear under transfer income, item 5(a). In a closely related case, however, that of employer and employee contributions to private pension funds, it is more convenient to treat the contributions as elements of current Personal Income, and payments from the funds as inter-personal transfers which cancel out in this account. The present alternative would be to include these transactions with the business sector.
2. In addition to cash payments this item includes estimates for food and clothing supplied in kind.
3. (a) This item is calculated before income and excess profits taxes, and excludes earnings from sources other than the proprietor's business. It would be preferable to separate withdrawals for personal use from earnings retained in the business and to include only the former part here, but this is not statistically possible. The item excludes the "adjustment on grain transactions".
- (b) See item 3(a).
4. This item is derived from "other investment income", item 27(f). The main adjustments are: inclusion of interest and dividends received by persons from abroad, dividends received by persons from Canadian corporations, and interest on public debt; and exclusion of interest paid abroad, profits of government enterprises, government interest revenue, and the inventory valuation adjustment on grain in

commercial channels other than the Canadian Co-operative Wheat Producers and the Canadian Wheat Board.

5. (a) Includes elements of Personal Income which are not earnings from productive services, e.g., family allowances, old age pensions, veterans' gratuities, grants to private non-commercial institutions, outpayments of social security and government pension funds. See also item 1(d).

(b) Charitable donations by corporations are treated as transfers from the business sector to the personal sector.

(c) Bad debt losses of corporations are treated as transfers from the business sector to the personal sector. See section on sources and methods for further explanation.

6. Personal Income is defined as the sum of all current receipts of income, whether in cash or in kind. It differs from National Income in that it excludes all current earnings not paid out to persons, such as undistributed profits, and includes receipts which have not been earned in the course of current production, that is transfer payments such as family allowances and unemployment insurance. The nature of some of the available statistics, however, necessitates a slight deviation from this definition, insofar as some items (e.g. mortgage interest) are on an accrual rather than on a cash receipts basis.

7. (a) In addition to personal income taxes this item includes excess profits taxes paid by unincorporated businesses.

(c) Includes motor vehicle licenses, radio licenses, marriage licenses, fines and penalties, etc., paid by persons.

8. (a) Includes all personal expenditure on consumer goods and services except personal expenditure abroad and personal expenditure for direct services such as domestic help and salaries and wages paid by non-commercial institutions, none of which represent purchases from Canadian business. Expenditure by persons on consumer durables such as automobiles and refrigerators is included but purchase of houses is excluded.

(b) See item 1(c).

(c) The figures of "tourist and travel expenditure" as published in the Canadian Balance of International Payments are used provisionally to represent total personal expenditure abroad, exclusive of personal remittances abroad and expenditure by Canadian service men abroad. On the one hand, this procedure fails to take account of certain elements of personal expenditure abroad, such as mail order purchases, which are not included in the total of tourist expenditure; on the other hand, it includes certain elements of business and government expenditure abroad which should be excluded. It is not possible at the present time to make satisfactory adjustments for these factors. See also notes to 19(a) and 29.

(d) Includes personal remittances abroad and expenditure by Canadian armed forces abroad.

9. This item is estimated residually by deducting from Personal Income the sum of personal direct taxes and personal expenditure on consumer goods and services. The figure includes the net change in farm inventories as well as the refundable portion of income and personal excess profits taxes.

11. (a) See item 7(a).

(c) See item 7(c).

12. (a) Includes corporate income and excess profits taxes on an accrual basis. The refundable portion of the excess profits tax is excluded. Adjustments have been made for renegotiation of war contracts and conversion to a calendar year basis.

13. These are taxes on interest, dividends, rents and royalties paid to non-residents.

14. Indirect taxes represent a part of the market prices of goods and services which does not appear in factor costs. In contrast to direct taxes which are levied on net income, indirect taxes are deductible from gross revenue as business costs, e.g., real property taxes, excise and sales taxes.

15. (a) Includes interest on advances to public utilities and foreign governments and earnings of sinking funds and other public funds such as social security and pension funds. See also item 20(a).

(b) Includes net profits of government business enterprises such as Canadian National Railways, provincial public utilities, etc.

16. See item 1(d).

17. This is not the conventional budgetary deficit or surplus since government revenue and expenditure have been adjusted to conform with the basic definitions incorporated in the National Accounts. The budgetary accounting statements of fiscal year revenue and expenditure have been amended to exclude purely bookkeeping transactions as well as the purchase and sale of existing capital assets. Extra-budgetary transactions such as employer and employee contributions to, and transfer payments from, unemployment insurance, workmen's compensation, and government pension funds, have been added. Further, the surpluses or deficits of government enterprises are included. Some of the more substantial adjustments to the federal accounts are as follows: elimination of reserve for possible losses on active assets, elimination of reserves for veterans' conditional benefits, elimination of expenditures charged with respect to the assumption of Newfoundland debt, elimination of expenditures charged with respect to shipment of World War II military equipment to Europe under the North Atlantic Treaty, elimination of write down of active assets to non-active account, allocation of war refunds to prior years, adjustment of corporate taxes to an accrual basis, and elimination of sales of war assets. In addition, the federal figures are adjusted

to a calendar year basis by using the monthly figures published by the Comptroller of the Treasury. Government loans to foreign countries or accumulation of gold or foreign exchange are not included with government expenditure.

19. (a) This category embraces all government expenditure on goods and services except wages and salaries, military pay and allowances, interest on government debt incurred to finance existing real assets and government direct military expenditure abroad. Wages, salaries, military pay, and direct military expenditure abroad are excluded because the purchase is not made from Canadian business; interest is excluded because the business operating account does not include investment income received from other sectors. Government expenditure abroad for official travel, maintenance of embassies, etc., should be excluded. It was not feasible to make this adjustment which is known to be relatively small. Government expenditure for gifts abroad (mutual aid, U.N.R.R.A. and military relief) is included here.
 - (bi) See item 1(b).
 - (bii) See item 2.
 - (biii) Interest on the public debt is divided into two parts. Interest on that portion of the public debt incurred to finance existing real assets forms part of National Income and is included here. Interest on the other portion of the public debt is treated as a transfer payment and appears under item 20(a) below.
 - (c) This item includes expenditure for the maintenance of Canadian armed forces abroad (exclusive of military pay and allowances which are included under 19(bii) above), and purchase of military equipment and facilities from other countries.
20. (a) This is interest on that portion of the public debt not incurred to finance existing real assets. This figure is gross and consequently it is necessary to deduct interest revenue, item 15(a), to approximate the net transfer to the private sectors. See also notes to items 15(a) and 19(biii) above.
 - (b) See notes to item 5(a)
21. Subsidies represent amounts contributed by government toward current costs of production. Accordingly, they are treated as offsets to indirect taxes collected by government (see item 28(b)).
23. (a) See item 8(a).
 - (b) See item 19(a).
 - (c) All expenditure in Canada on new construction, new machinery and equipment and inventories by private or government business enterprises and home owners is included here. (The total of these items is called gross domestic investment). Government expenditure on roads, public buildings and other new durable assets (other than expenditure by government business enterprises) is not included here but appears in government expenditure on goods and services (item 19). An estimate of capital expenditure charged to current account is included with new construction, new machinery and equipment (see item 28(c)). An inventory valuation adjustment has been made for grain held in commercial channels (see items 45(h) and 27(d)).
24. This item includes all Canadian credits on current international account except interest and dividends received from abroad. The assumption is made that all exports of goods and services are made by business, in order to avoid adjustments which are not of sufficient practical importance to warrant additional complication of the accounts. Interest and dividends received from abroad are excluded because Tables 10 and 11 constitute an operating account.
26. Sales by one Canadian business to another, other than sales on capital account, do not appear as such in this consolidated table. If these inter-business transactions were shown, the same amount would appear on both sides of the account and items 26 and 31 would be correspondingly larger.
27. (a) See item 1(a).
 - (b) See item 3(a).
 - (c) See item 3(a).
 - (d) This adjustment is made up of two parts. The first part takes account of the undistributed earnings of the Canadian Co-operative Wheat Producers and the Canadian Wheat Board. The second part of the adjustment allows for the fact that current earnings of these agencies are calculated on the basis of change in book values of inventories, whereas the required valuation of inventories for the National Accounts is the value of the physical change. All the figures are transformed to a calendar year basis.
 - (e) Corporation profits are reckoned before deduction of income and excess profits taxes, depletion allowances and charitable donations. All non-operating revenues should be excluded from this item but in practice it is possible to exclude only interest and dividends from abroad. The figures are adjusted for corporation losses, renegotiation of war contracts and conversion to a calendar year basis. (For the total of corporation profits inclusive of interest and dividends received from abroad see footnote 1, table 14).
 - (f) This item is obtained by adding together interest and net rents received by persons, interest paid to non-residents, investment income of life insurance companies and similar bodies accruing on behalf of Canadian policy-holders, government interest revenue, and trading profits of government business enterprises; and deducting all interest on government debt, including interest on debt incurred to finance existing real assets. Interest and dividends received from abroad are omitted. The portion of the inventory valuation adjustment on grain held in commercial channels, other than the Canadian Co-operative Wheat Producers and the Canadian Wheat Board, is included here. See item 45(h).

28. (a) See Item 14.
 (b) See item 21.
 (c) Business accounting depreciation allowances are used as a basis for calculating depreciation on plant, equipment and machinery. Depreciation on residential property is calculated as a percentage of gross rents. Insured losses by fires and accidental damage to business and residential property, an estimate of capital expenditure charged to current account, and bad debt write-offs (less recoveries) are also included here.
29. Includes all Canadian debits on current international account exclusive of interest and dividends paid abroad, tourist and travel expenditure, expenditure by Canadian armed forces abroad, personal remittances abroad, and government military expenditure abroad. See also item 19(a) re government expenditure abroad, and item 8(c) re personal expenditure abroad.
31. See item 26.
32. (a) See item 29.
 (b) Includes payment of interest and dividends after deduction of withholding taxes.
33. See items 8(c) and 8(d).
34. (a) See item 19(c).
35. See footnote to Table 12.
37. (a) See item 24.
 (b) Includes interest and dividends received by Canadian corporations from abroad.
38. Includes interest and dividends received by persons (including unincorporated business) and governments from abroad.
40. To obtain the total of corporation profits before taxes add items 40 and 43(a). See also item 27(e).
41. See item 27(f).
42. See items 19(biii) and 20(a).
43. See items 37(b) and 38.
45. (a) See item 4.
 (b) See item 5(b).
 (c) See item 12(a).
 (d) See item 13.
 (e) See item 15(b).
 (f) See item 15(a).
 (h) See footnote 1, Table 15.
46. (a) See item 32(b).
48. See item 9.
49. (b) See item 28(c).
 (c) See item 5(c).
 (d) See item 27(d).
 (e) See item 45(h).
50. See item 17.
53. See item 23(c).
54. See item 35.

Section 3

NOTES ON INDUSTRIAL DISTRIBUTION OF NATIONAL INCOME

The industrial distribution of National Income shows the source of the nation's earnings by the various industrial groups in which the income originates. At the same time, it shows the net contribution made by each of these industrial groups to the nation's production, measured at factor cost. Thus, the industrial distribution is useful in bringing into quantitative perspective the industrial structure of the economy, and in analyzing shifts in the utilization of the factors of production over a period of time.

Net income originating in an industry is measured by adding together all payments made by that industry for use of the factors of production (i.e. labour and capital, including land) — wages, salaries, interest, rents and profits before taxes — and subtracting interest and dividends received. Thus, if an industrial group pays \$5 million bond interest and received \$2 million bond interest, only \$3 million bond interest is net income originating. The

net income originating in an industry therefore takes into consideration all factors of production on a net basis, avoiding all duplication.

Theoretically, net income originating in an industry equals "net value added" by the industry; the former views this total as the earnings of the factors of production employed, while the latter views it as a measure of new production in the industry. It should be noted, however, that net income originating, as included in the industrial distribution of National Income, is smaller than the figure of "value added" (net production) published by other sections of the Bureau. The latter are estimated by subtracting certain outlays from gross value of production. Since, in practice, it is possible to eliminate only cost of materials (including fuel, purchased electricity, and supplies consumed in the production process) the published estimates of "value added" (net production) include cost of services such as insurance, advertising, transporta-

tion and communication; and depreciation, as well as the sum of net income originating.

A major problem in the industrial distribution of National Income is that of classification; the data on labour income and net income of unincorporated business are classified on an establishment or plant basis; on the other hand, investment income, including corporation profits, is classified on a company basis, because it is difficult to allocate corporation profits and related items among the various activities of a multi-plant company. However, (except in the case of forestry) the difference between the two bases of classification is small as long as all manufacturing is classified in one group, with no subdivisions. It was noted, for example, that when wages and salaries were classified on a company basis for the year 1946 the results were similar to those from a classification on an establishment basis, except that forestry was reduced by approximately \$50 million and manufacturing correspondingly increased.

In general, the Standard Industrial Classification is followed in the industrial distribution. However, certain differences in concept and definition between this classification and the National Accounts make it necessary to deviate somewhat with respect to the treatment of the government sector. The reason for this deviation is that the National Accounting system, in addition to showing income originating in different industrial groups, also differentiates transacting units on the basis of their motivation; this latter distinction is not made in the Standard Industrial Classification. Thus, in the National Accounts, transactions arising in the government sector (government non-commercial activity) are segregated from transactions arising in the business, personal, and non-residents' sector. However, in the Standard Industrial Classification, certain types of transactions arising from government non-commercial activity (e.g. forestry patrol, fishery inspection, bridge and highway construction, health and educational service), are allocated to their various related industrial groups, (forestry, fishing, construction, and service) rather than in the government sector as defined for the National Accounts. On the other hand, certain government business enterprises (government commercial activity) such as the Post Office and the Canadian Farm Loan Board are allocated to government service in the Standard Industrial Classification, whereas in the National Accounts they are assigned to "communication" and "finance", respectively, in the business sector.

At the present time the problem of providing data which will reconcile these two important classifications is still under review.

A brief description of the methods used in estimating the industrial distribution of the National Income follows:

- (a) **Wages, Salaries and Supplementary Labour Income.** Figures for wages, salaries and supplementary labour

income are estimated on an industry basis and the methods and sources used have been described in Section 1.

- (b) **Corporation Profits Before Taxes.** The methods and sources of estimating corporation profits before taxes are identical with those already described in Section 1, the information being available on an industry basis. The main industrial groups in "Taxation Statistics" conform generally to the Standard Industrial Classification. In order to adhere more closely to the Standard Industrial Classification, however, profits of repair establishments, which are classified in the service industry in "Taxation Statistics" are deducted from that group and included in the manufacturing group.

- (c) **Investment Income (excluding Corporation Profits).** The main items of investment income (excluding corporation profits) are distributed industrially as follows:

- (i) Net bond interest paid, i.e. total bond interest paid by all industrial groups minus total bond interest received by such groups, is distributed industrially on the basis of information obtained from "Taxation Statistics", the special corporation sample study, "Report of the Superintendent of Insurance for Canada", reports on "The Canadian Balance of International Payments", information supplied by the Balance of Payments Section, and the Public Accounts and other reports of the federal and provincial governments. The resulting series is adjusted by excluding the transfer portion of interest on the public debt.
- (ii) The industrial distribution of interest on bank loans is based on information supplied by the Bank of Canada. Deposit interest paid by banks and the valuation of banking services to depositors for which there is no specific charge are included in finance, insurance and real estate.
- (iii) Interest paid on farm mortgages is included in agriculture. Almost all other mortgage interest is paid by persons on residential property. This interest is included in finance, insurance, and real estate, as all persons paying such interest are considered to be paying it in their capacity as real estate operators rather than as persons. Interest received by business and government agencies is deducted from the appropriate industrial group.
- (iv) Dividends paid by non-residents are distributed industrially on the basis of information obtained from "Taxation Statistics" the special corporation sample study, reports on "The Canadian Balance of International Payments", and information supplied by the Balance of Payments Section.
- (v) Profits of government business enterprises are included in their appropriate industrial category.

- (d) **Net Income of Unincorporated Business.** For the methods and sources of estimating net income of unincorporated business, see Section 1.

Section 4

NOTES ON GEOGRAPHICAL DISTRIBUTION OF PERSONAL INCOME

This section provides estimates of current receipts of income of persons, in cash or in kind, separately for each of the provinces of Canada.¹ The term "persons" includes individuals, private non-commercial institutions (charitable organizations, hospitals, and so on) and private pension funds. Personal Income differs from National Income in that it excludes all current earnings not paid out to persons, such as undistributed corporation profits and profits of government business enterprises, and includes receipts which have not been earned in the course of current production, that is, transfer payments.

In addition to the total, the following four components of Personal Income are shown separately:

(a) **Wages, Salaries, and Supplementary Labour Income.**

Estimates of wages, salaries, and supplementary labour income, by provinces, are prepared by the Labour and Prices Division, Dominion Bureau of Statistics. For the years 1938-1950, the distribution is mainly based on tabulations, by provinces, of the annual and monthly returns submitted to the Bureau by various industries; in some cases (e.g. agriculture), ratios established from the 1941 census of Canada and the 1946 quinquennial census of the Prairie Provinces are used. The classification of federal government wages and salaries by provinces is based currently on the geographical distribution of federal civil servants. For the years 1926-1937, the statistical base on which the estimates rest is considerably narrower; the estimates are obtained by interpolation of percentage shares established from the 1921 and 1931 censuses, and those obtaining in the year 1938.

(b) **Net Income Received by Farm Operators from Farm Production and Net Income of Non-Farm Unincorporated Business.** Provincial data on cash farm income, income in kind, and farm expenses are estimated annually for each province by the Agriculture Division of the Bureau. These data are adjusted in line with National Accounting concepts, to yield a provincial classification of net income received by farm operators from farm production. Net income of non-farm unincorporated business is distributed on the basis of annual production and sales data prepared by various sections of the Bureau, 1941 and 1946 census data, and surveys of net income in certain professional groups. For the years 1926-1937, information from the reports of the Rowell-Sirois Commission is used to obtain the provincial breakdown in a number of industries.

1. In certain instances (e.g. net income of farm operators from farm production, or net rental income of persons) where a resident of one province receives income from a business or a property in another province, the income is included in the province in which the business or property is located. This source of error is not believed to be significant.

(c) **Interest, Dividends, and Net Rental Income of Persons.**

Dividends and Bond Interest — For the years 1926 to 1940, this item is allocated provincially on the basis of a distribution obtained from the Rowell-Sirois Commission. For the years 1941 to 1945 inclusive, percentage distributions are obtained by linear interpolation between the Rowell-Sirois figures for 1940 and provincial figures of bond interest and dividends reported by individuals filing income tax returns ("Taxation Statistics"). From 1946 to 1950 the data are obtained from "Taxation Statistics".

Mortgage Interest Received by Persons — The provincial distribution of mortgage interest received by persons as reported in "Taxation Statistics" is used to distribute mortgage interest for the years 1945 to 1950. For the years 1938 to 1945 inclusive, the 1946 distribution is adjusted to take account of changes in the relative distribution of holdings of mortgages by insurance and trust companies. The assumption that the relative geographical distribution of personal holdings will change in the same way as the relative distribution of corporate holdings is not satisfactory but other information is not available. For the years 1926 to 1937, the distribution is assumed to be the same as that obtaining in the year 1938.

Net Rents Received by Persons — For the years 1926-1937, figures on net farm rents received by persons are obtained from the Agriculture Division of the Bureau, while net non-farm rents are distributed on the basis of Rowell-Sirois data. For the years 1938-1950, total provincial gross rents are obtained by multiplying the number of dwellings by average rent per dwelling. The family expenditure survey supplied data on expenses for the estimation of net rents by provinces.

Investment Income of Life Insurance Companies and Fraternal Societies — For the years 1936-1950, this item is distributed on the basis of the amount of insurance in force in each province at the end of each calendar year as reported in the "Annual Report of the Superintendent of Insurance". For the years 1926-1935, the percentage distribution is assumed to be the same as for the year 1936.

Deposit Interest and Imputed Bank Services — Data on cheques cashed against individual accounts were used to distribute these figures for the years 1926-1950 ("Annual Reports of Cheques Cashed Against Individual Accounts").

Other — The undistributed residual consisting of the investment income of industrial pension funds, profits of non-life mutual insurance companies and co-operatives, and the negative item "interest on consumer debt" is pro-rated on the basis of the distribution of the total of the above components.

(d) Transfer Payments.

Family Allowances — The provincial figures are obtained from publications of the Department of National Health and Welfare.

War Service Gratuities — These are distributed in proportion to provincial enlistments.

Re-establishment Credits and Rehabilitation Benefits — The provincial data are supplied by the Department of Veterans Affairs.

War Pensions and War Veterans' Allowances — For the years 1938-1950, figures on provincial payments are obtained from the reports of the Department of Veterans Affairs and the Department of National Health and Welfare. For the years 1926-1937, the distribution is based on data from the report of the Rowell-Sirois Commission.

Prairie Farm Assistance Act Payments — This information is supplied by the Agriculture Division of the Bureau.

Unemployment Insurance Benefits — The provincial data are secured from the annual reports of the Unemployment Insurance Commission.

Prairie Farm Income Plan Payments — The estimates of provincial payments are based on data drawn from the Public Accounts of the federal government.

Pensions to Government Employees — The federal content of these pensions is distributed on the basis of information from the Department of Finance as to the place of residence of superannuated civil servants. The provincial data are drawn from the Public Accounts of the various provinces.

Grants to War Charities — This item is allocated on the basis of population.

Wheat Bonus — This item is allocated to the Prairie Provinces on the basis of population.

Mothers' Allowances, Old Age Pensions, Workmen's Compensation, Provincial Grants to Private Non-Commercial Institutions, and Relief — All these are assembled from the Public Accounts of the various provinces.

(e) Miscellaneous Items. The following components of Personal Income are included in the total only, and not shown separately. They are distributed by provinces as follows:

Employer and Employee Contributions to Social Insurance and Government Pension Funds — Employer and employee contributions to the Unemployment Insurance Fund are allocated provincially on the basis of the number of books issued annually in each province. Contributions to Workmen's Compensation Funds and provincial government pension funds are obtained for each province from the provincial Public Accounts. Contributions to federal government pension funds are allocated on the basis of the number of civil servants employed in each province in March 1951. Payments to municipal pension plans are allocated on the basis of the distribution obtaining in 1948, for which a special study was made.

Military Pay and Allowances — For the years 1926-1939, military pay and allowances are broken down provincially on the basis of the distribution for the year 1940 as set out in the report of the Rowell-Sirois Commission. For the years 1940-1945, Navy and Air Force Pay and allowances are distributed by provincial enlistment figures while figures on Army pay and allowances by provinces are supplied by the Department of National Defence. For the years 1946-1950, provincial figures for all three services are obtained from the Department of National Defence.

Charitable Contributions from Corporations — These are distributed on the basis of the populations of the various provinces.

Section 5

NOTES ON DETAIL OF PERSONAL EXPENDITURE ON CONSUMER GOODS AND SERVICES

(a) Commodity Classification of Goods. As described earlier, personal expenditures on services are estimated separately for each component listed below. However, in the case of goods the total only is estimated in the first instance. In order to obtain a classification of personal expenditure on goods and services by type, it is necessary to classify the "goods" estimate by commodity groups. Estimates of individual commodities included in the total are based on the commodity classification of retail sales prepared in connection with the census of merchandising in 1930 and 1941. All of the adjustments to retail sales indicated previously in the description of the estimate of "total goods" are also applicable in preparing estimates of individual commodities.

For other years, estimates are obtained by applying indexes to the basic census year estimates. A variety of data are used in constructing these indexes including related store-type sales series, department store sales classified by departments, production, imports and exports, and excise tax data. About 95 per cent of the total is ascribed to specific commodity groups by this procedure.

(b) Description of Content of Classification. The following table shows the content of each of the main groups. It is believed that further research will make it possible to show separate figures for many of the items listed below and, in some cases, even greater detail.

The category **Durable Goods** as shown in the table includes the following items: Automobiles (new) and net purchases of second-hand automobiles, household appliances and radios, (including stoves and ranges, washing machines, vacuum cleaners, etc.) furniture and home furnishings, jewellery, silverware, watches and clocks. This is admittedly an incomplete description of durable consumer goods, since it has not been possible to date to include in the total a number of miscellaneous durable items such as dishwashing machines, bicycles, motor cycles, and durable sports equipment. Research designed to rectify this omission is now in progress.

The **Service** component includes all of the items marked (s) in the following table.

Non-Durable Goods comprise the balance of the total.

Group I – Food¹

Purchased at Retail, for off-premise consumption
Meals (including board at university residences)
Income in kind:

Farm consumed farm produce.

Armed Forces issue.

Food component of living allowances to non-agricultural workers.

Group II – Tobacco and Alcoholic Beverages

Tobacco Products (including cigarette papers)
Alcoholic Beverages

Group III – Clothing and Personal Furnishings

Men's & Boys' Clothing
Women's and Children's Clothing
Footwear
Piece Goods
Notions & Smallwares
Armed Forces Issue
Jewellery & Watches
Dressmaking & Tailoring (s)
Laundering (s)
Dry Cleaning, Pressing, Repair (s)
Shoe cleaning and repair (s)
Jewellery and watch repair (s)

Group IV – Shelter²

Rents – Paid (s)
Rents – Imputed (s)
Lodging Expenses (net) (s)
Imputed Lodging – Non-residential (s)

Group V – Household Operation

Fuel
Electricity (s)
Gas (s)
Telephone (s)
Soap & Cleaning Supplies
Household Supplies n.e.s.
Home Furnishings
Furniture
Appliances & Radios
Domestic Service (s)
Furniture and Upholstery repair (s)
Moving Expenses (s)
Theft Insurance (Administration Cost) (s)
Personal Property Insurance (Administration Cost) (s)

Group VI – Transportation

(a) User Operated:

Automobiles – New
Automobiles – Second hand (net purchases)
Gasoline, Oil, Grease
Automobile Parts and Accessories
Automobile Repair Charges (s)
Automobile Insurance (Administration Cost) (s)
Bridge, Tunnel & Ferry Tolls (s)

(b) Purchased:

Taxi Fares (s)
Railway Fares (s)
Street Car Fares (s)
Steamship Fares (s)
Air Travel (s)

Group VII – Personal & Medical Care & Death Expenses

Drugs, cosmetics and toilet preparations
Barber Shops and Beauty Parlors (s)
Medical Care (s)
Dental Care (s)
Osteopaths & Chiropractors, etc. (s)
Turkish Baths, etc. (s)
Private Duty Nursing (s)
Hospital Care (s)
Accident & Sickness Insurance (Administration Cost) (s)
Less – Compensations (s)
Funeral & Burial Services (s)
Cemeteries & Crematories (s)

Group VIII – Miscellaneous

Motion Picture Theatres (s)
Other Recreation (s)
Education and Instruction (s)
Hotels (s)
Religious & Welfare Activities (s)
Life Insurance (Administrative Cost) (s)
Bank Service Charges – Paid and Imputed (s)
Legal Services (s)
Postage and Post Office Services (s)
Cables and Telegrams (s)
Express (s)
Newspapers & Magazines
War Assets
Miscellaneous Goods
Local and Provincial Sales Taxes n.e.s.
Miscellaneous Services (s)
Net Expenditure Abroad (s)

1. Including non-alcoholic beverages and confectionery.

2. Excluding transient shelter which is included in Group VIII.

Section 6

NOTES ON CONSTANT DOLLAR ESTIMATES OF GROSS NATIONAL EXPENDITURE

To remove the effect of price changes from the year to year movements of the current dollar series of Table 2, Part I, a procedure known as "deflation" has been employed. The current dollar estimates show large increases in recent years, but much of this is due to price changes. In order to remove the effects of the latter, the current dollar values are divided by appropriate price indexes specifically selected or specially constructed to match the contents of the individual value components. The resulting figures, shown in Table 3, are expressed in constant dollars of the base period, which in this case is 1935-1939. A test calculation has been carried out using a 1949 base for the years 1946 to 1950, and it shows very little divergence in movement from the estimates of Table 3. Year to year changes in the constant dollar magnitudes constitute a measurement of change in real output which may be converted into quantity indexes.

The first step in the deflation procedure was to obtain a breakdown of the value series in as fine an item detail as possible. For example, personal expenditure on consumer goods and services was broken down into food, women's clothing, men's clothing, tobacco, fuel, and so on. The second step was to divide each of the detailed value series by an appropriate price index, thus obtaining a constant dollar series. The third step was to sum the detailed items expressed in constant dollars.

It may be noted that an implicit (currently weighted) price index may be obtained at any stage of the summation by dividing current dollar totals by the constant dollar totals. Further comment on these indexes is made below. An illustration of the deflation procedure follows:

	1949	1950
1. Men's clothing, current dollars (million)	391.8	391.5
2. Price index (1935-1939 = 100)	201.7	199.6
3. (1) ÷ (2) equals men's clothing, constant dollars (million)	194.2	196.1
4. Women's clothing, current dollars (million)	623.4	595.5
5. Price index (1935-1939 = 100)	171.4	169.3
6. (4) ÷ (5) equals women's clothing, constant dollars (million)	363.7	351.7
7. Men's and women's clothing, current dollars (million) (1) + (4)	1,015.2	987.0
8. Men's and women's clothing, constant dollars (million) (3) + (6)	557.9	547.8
9. (7) ÷ (8) equals price deflator, men's and women's clothing	182.0	180.2

Nature of Constant Dollar Series and Implicit Price Indexes

The main object of the deflation project, as noted above, was to eliminate the influence of price changes from the value figures in order to provide an approximation to movements in total real output of goods and services.

Another way of estimating movements in total real output is by extending the Bureau's index of the physical volume of industrial production (which at present covers manufacturing, mining and electric power) to cover the entire economy, including the extractive industries, construction, services, trade, transportation, communication and storage, and finance, insurance and real estate. Research in this direction is proceeding and when this work is completed it will provide further information on volume movements.

The constant dollar estimates can be used, in conjunction with the current dollar values, to

analyze inflationary processes in the economy. They are also useful in the analysis of overall economic growth and real resource use.

It is possible to divide constant dollar estimates of total output by a measurement of input to obtain a ratio of total output per unit of input. Although a number of input factors might be chosen for this purpose, it is usual to use labour input, e.g. manhours worked. The resulting measurement of output per manhour is sometimes used as a measure of productivity, but it should be noted that an overall ratio of this nature is subject to a number of important qualifications.

In the first place, the overall ratio is affected by changing patterns of production from year to year. For example, if there were a shift from agriculture into manufacturing, the ratio might go up merely because output per manhour is higher in manufacturing than in agriculture. This increase in overall output per manhour could occur without any change

in productivity in either sector. Further, the accuracy demanded of the data for productivity analysis is very great because relatively small errors in the numerator and denominator of the fraction which constitutes the productivity ratio may give rise to larger errors in the productivity measurement.

As indicated in the introductory analysis, the constant dollar series contain certain imperfections, which are not believed to be serious for uses of the data mentioned earlier, although they could be of considerable importance in analysis of productivity changes from year to year. The main shortcomings of the constant dollar estimates are summarized here; it is hoped that further development of statistics and research will make it possible to render the estimates more precise.

First, it may be noted that the deflation procedure adopted in the case of a number of components was to divide the current dollar values by an index of costs rather than by one of market prices. Lacking market prices for items such as new buildings and domestically-produced machinery and equipment, wage rates and raw material prices were combined in order to construct a deflator. This procedure assumes that market prices moved in the same manner as raw material prices and wage rates. Wage rate costs per unit of output will vary inversely with productivity; however, available statistics did not permit adjustments to be made for changing productivity, except in the case of residential construction since 1941. Further, in the absence of appropriate data, changing profit margins have not been taken into account in the construction of the cost index. The method of estimating constant dollar expenditures on government direct services (mainly wages and salaries) also assumes constant productivity.

Other factors for which it has not been possible to allow in the price indexes are bargain sales, concealed discounts and premiums. Further, while the price of a commodity may nominally remain the same, the commodity itself may improve in quality and, in effect, this is equivalent to a reduction in its price or an increase in its quantity; attempts have been made to account for this factor in the price indexes but it is not possible to allow for it completely.

The deflation procedure, however, does take into account a special type of "quality change" which would not be normally reflected in direct measurements of physical production. This "quality change" results from the fact that groups of commodities, treated statistically as individual products, frequently change in composition. If the proportion of higher quality and more expensive clothing purchased were higher in 1950, for example, than in 1946, the average quality of the group "clothing" may be said to have increased and this would be reflected by a rise in its current dollar value. When this higher value is divided by an index of prices of specified individual clothing items, the quantity measurement will contain an increase on account of this improvement in "group quality". This is one of the main advantages of

deflation as against direct volume measurement when all types, sizes, or models of a commodity cannot be individually treated.

It should be noted that price indexes are constructed on the basis of prices of a sample of items and it is assumed that the prices in the sample have moved in the same manner as prices not covered.

With reference to Table 4, the price indexes included here are obtained by dividing the constant dollar estimates of Table 3 into the current dollar values of Table 2. As indicated above, a price index obtained at this level of the deflation process is in effect currently weighted; that is, the price relatives have in effect changing weights assigned to them, in accordance with changes in the patterns of constant dollar expenditures in successive years. To the extent that expenditure patterns have changed, these implicit price indexes are not, theoretically, comparable from year to year although each one of them is comparable with the base period (1935-1939). For most general purposes, however, this theoretical limitation is not important.

While these implicit price indexes are currently weighted at levels at which they appear in the table, it should be noted that at the initial stage in the deflation process price indexes have been employed, which, in many cases, are base weighted; that is, fixed weights have been attached to the price relatives, assuming that the expenditure pattern of the base period held throughout. Reference to the numerical illustration above may further clarify the point. It will be seen that the total of men's clothing in current dollars, which is made up of numerous items of clothing (line 1) is divided by a price index applicable to the total of men's clothing (line 2); this price index is weighted by a fixed pattern of expenditure on men's clothing, the one which prevailed in the base period. So long as the relative quantities of the various items constituting the group "men's clothing" have changed in the same proportion, it is a matter of indifference whether they are base or currently weighted. However, if changes in the relative quantities purchased within the group take place, and in addition, the relative prices change, there will be a difference in the constant dollar estimates, depending on whether current or base weighted indexes are used. It is for this reason that the deflation was carried out in as much detail as possible; in order to make maximum allowances for changes in the patterns of quantities purchased, or in other words, to bring the results closer to a completely currently weighted price index system.

It is believed that, with the exception of exports and imports, the discrepancies which arise from the use of base weighted rather than currently weighted price indexes in the initial stage of the deflation process are not large enough to affect seriously the general conclusions which can be drawn from the figures of Table 3. In the case of exports and imports, the discrepancies have been large enough to call for special treatment.

The level of detail at which the various steps in deflation have been performed is already quite considerable, but some improvement in accuracy may accrue as a result of a further breakdown of many of the components. However, it is felt that the greatest possibility of refinement lies in development of additional price and quantity series, rather than in construction of more detailed weighting systems.

Special mention may be made of the implicit index obtained by dividing Gross National Expenditure in constant dollars into the corresponding aggregate in current dollars. These aggregates, it will be recalled, are arrived at by subtracting imports of goods and services from larger totals which measure "gross available supply" (i.e. Gross National Expenditure plus imports). The implicit price index of Gross National Expenditure, therefore, differs in construction from those commonly used. However, the movements of the implicit price index of Gross National Expenditure are very similar to those of the index which is obtained if "gross available supply" in constant dollars is divided by the same aggregate in current dollars.

It should be noted that the line for inventories is omitted in Table 4. The detailed components of inventories consist of a large number of positive and negative changes, and it is not possible to obtain a meaningful price index for the sum of current-dollar changes divided by the sum of constant dollar changes.

When the projected work on real output is completed an analysis of conceptual issues and detailed descriptions of sources and methods used will accompany the published results. In the meantime, brief notes are included here, indicative of the general sources and methods used in the deflation of the main components of Gross National Expenditure.

Personal Expenditure on Consumer Goods and Services

A relatively large amount of price data is available (Prices Section, Dominion Bureau of Statistics) for purposes of deflating personal expenditure on consumer goods and services, which accounts for about two-thirds of total Gross National Expenditure. The majority of the subgroups and a number of individual items of the cost-of-living index have been used in one combination or another in deflating the commodity and service detail. This detail consists of approximately fifty individual categories of personal expenditure on consumer goods and services.

In a number of important cases, however, special procedures have had to be devised. For instance, in the cases of alcohol and tobacco, there are adequate statistics on quantities released for consumption, and these have been utilized. In such cases, the quantity index is multiplied by the base period value estimate (e.g. personal expenditure on tobacco in the years 1935 to 1939), in order to obtain a constant dollar estimate. In the

cases of automobiles, jewellery and tourist expenditures, special price indexes have been constructed (in the Prices Section and National Income Section) using various sources of information. These include direct correspondence with manufacturers, and annual catalogues of large mail-order houses and jewellery stores.

Government Expenditure on Goods and Services

In the government sector, it is difficult to obtain an object breakdown of expenditures of the three levels of government. The categories utilized are federal wages and salaries, provincial and municipal wages and salaries, military pay and allowances, interest on the "productive" portion of the government debt, official contributions, investment expenditures on machinery and equipment, building and engineering construction, and a residual. The last item consists of two parts; namely, war materials, and routine expenses such as office supplies and repairs to equipment.

The salary and wage estimates were deflated on the basis of a special wage rate index covering selected civil service occupations, and the annual number of employed persons in the civil service. In the case of military pay and allowances, a volume indicator consisting of the number of members of the armed forces, adjusted for changes in composition of ranks, was used.

Interest on the "productive" portion of government debt was deflated using a moving average of interest rates and construction costs. Official contributions (UNRRA, Mutual Aid, etc.) were broken down, mainly on the basis of the Canadian Mutual Aid Board Report, into commodity groupings which matched the export classifications, and were deflated by appropriate export price indexes. Government investment expenditures on machinery and equipment, building and engineering construction were deflated by price series described in the investment section below. The deflator for machinery and equipment was also used for the deflation of expenditure on war material. Routine expenses were deflated by the cost-of-living index.

Gross Domestic Investment

The investment group was broken down into residential construction, non-residential building construction, engineering construction, machinery and equipment and inventories.

Residential construction, in turn, was classified into three groups: new non-farm construction, farm construction and conversions. For each of these three groups, indexes of residential building materials and construction wage rates were combined in appropriate proportions to develop deflators.

In the case of non-farm residential construction and conversions, a productivity factor was applied, to account for changes in efficiency from 1941 onward. No adjustment was made for varying profit ratios, however, but studies have indicated a relatively stable profit ratio in construction, except in

periods of sub-normal economic activity. Thus, distortion of the price index due to this factor is probably small.

Non-residential building construction and engineering construction were deflated by combined indexes of building material prices and wage rates in the construction industry. Special indexes were developed for both building materials and wage rates. No profit or productivity adjustments could be ascertained from available data.

The machinery and equipment group was subdivided into two components — agricultural and non-agricultural. The agricultural component was deflated by a price index for farm machinery published by the Prices Section, Dominion Bureau of Statistics. The non-agricultural segment was classified further into a domestically produced portion, and a portion consisting of imports from the United States. The domestically produced portion of machinery and equipment was deflated by a combination of prices of materials used and wage rates. Imports of machinery and equipment were deflated by the price index for this group, published by the United States Department of Commerce; adjustments were made for exchange rates, import duties, sales and excise taxes, and transportation and markup costs, to arrive at an index of prices paid by Canadian users.

The current dollar estimates of inventory change consist of three groups: farm inventories, grain in commercial channels and business inventories. The first two components are based upon physical data, and the current quantities were simply multiplied by base period prices to arrive at a constant dollar series.

Business inventories were classified separately by groups, and each group was deflated separately. Within the manufacturing, wholesale and retail groups, each industry or trade type was deflated separately, while a single composite price index was applied in construction, logging, public utilities and remaining groups.

The procedure in deflating business inventories may be outlined briefly as follows. Year-end inventories as reported in each of the above classifications are divided by price indexes appropriate to the contents of inventories, the turnover periods and the predominant method of inventory accounting. This yields inventories in base period dollars, and the year-to-year change in them is a measure of physical change. This physical change is then multiplied by average annual prices in order to obtain the current value of the physical change. The difference between the latter and the original book value change is called "inventory valuation adjustment". Schematically, the procedure for deflating business inventories is as follows:

1. Book value.
2. Deflator.
3. $1 \div 2$ equals deflated book value.
4. Year-to-year change in deflated book value.

5. Average annual price index.
6. 4×5 equals value of physical change.
7. Book value change from line 1.
8. $6-7$ equals inventory valuation adjustment.

Line 4, the year-to-year change in deflated book value, is the business inventory change in constant dollars which is included in Table 3.

As stated above, the development of the deflator in line 2 was dependent upon the inventory accounting method employed in the various industries, the commodity content of the inventories, and their turnover periods in the various industries. Prices utilized came mostly from the Prices Section. Turnover periods for manufacturing were calculated from data obtained from the Industry and Merchandising Division, while those for other groupings in the industrial classification were arbitrarily estimated. Information on inventory valuation methods was obtained from "Inventory Accounting Methods of Canadian Manufacturers" (D.B.S. 1949). The inventory valuation adjustment is deducted from Gross National Expenditure so that the value change may be separated into its price and quantity components.

Exports and Imports of Goods and Services

Merchandise exports and imports were each deflated by specially constructed currently weighted price indexes¹, at the most elementary level. It was found, in a comparison of pre-war years with post-war years, that currently weighted price indexes differed considerably from the base weighted ones, mainly as a result of shifts in post-war patterns of trade. Accordingly, a special project was instituted to fulfil the need for currently weighted indexes. The primary source of the trade figures used was the publication "Trade of Canada" and the groupings included therein were adjusted for purposes of constructing the price indexes. In addition, special adjustments were made to convert the "Trade of Canada" data to definitions used in the National Accounts. For example, official contributions to other governments during the war were deducted from the appropriate export group and added to government expenditure.

Foreign tourist and foreign armed forces expenditures in Canada were deflated by an index based upon prices of goods and services normally purchased by tourists in Canada. The tourist and travel expenditures of Canadians abroad were deflated, in turn, by prices in United States of goods and services purchased by tourists, with adjustment for exchange rates. A similar approach was adopted in deflating expenditures by Canadian servicemen abroad, with United Kingdom price series being used. Personal remittances, received and paid, were evaluated in terms of how the money might be spent — in this case the consumer expenditure price deflator was considered appropriate. The net non-monetary gold series was based on direct quantity data. In the absence of price series on freight and shipping costs, general merchandise deflators were utilized for deflation of these items.

1. It should be noted that the use of the term current weights here applies only to the combination of price relatives from the item level upward in construction of export and import price indexes; in large part the export and import price relatives are derived from unit values based on data in "Trade of Canada".

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